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AUGUST 1952

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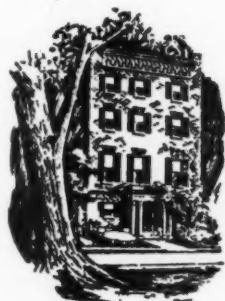
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The American Forestry Association, publishers of *American Forests*, is a national organization— independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

American FORESTS

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Cover

Basking on the cool shores of this Vermont lake may well represent paradise to readers confined to stifling hot and humid city dwellings. This delightful retreat is Echo Lake, located in northeast Vermont near East Charleston. In an area Vermonters sometimes call the Northeast Kingdom, three counties lay claim to 50 lakes. There are also nine mountain peaks in this highland region, each topping 3000 feet. Mack Derick, Vermont master of scenic photography, took this photo, and Vermont Life, magazine of the Vermont Development Commission, was kind enough to loan us the color plates.



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American FORESTS Forum

Looking Ahead—Before the 50th anniversary year of the National Lumber Manufacturers Association is relegated to the record books, you'll want to examine more closely this influential organization which serves as a spokesman for a large segment of forest industry. Thus LEO V. BODINE, newly appointed executive vice-president, next month will take a kaleidoscopic look at the organization's past accomplishments, survey the present scene and peer ambitiously and confidently into the years ahead.

If for any reason you haven't yet made reservations to attend the joint AFA-North Carolina Forestry Association annual meeting October 12-15 in Asheville, North Carolina, you won't be able to act fast enough after reading MATHILDA REED's inspiring article on Western North Carolina, *Carolina's Halo of Haze*.

HOMER FINE will have a timely article on Nebraska's man-made national forest on the eve of its 50th anniversary September 10-14, and COLONEL WILLIAM B. GREELEY in *Blood Will Tell* will pay much deserved tribute to Jim Eddy, founder of the forest genetics laboratory at Placerville, California. There'll also be a delightful piece of fiction (*Grandpa Was a Logger*) and the Woodland Management and Shade Trees features, among other articles.

Among Our Authors—KEITH R. MCCARTHY, who offers *Forever Wild* (page 6) is assistant editor of *American Forests* who deserves more by-lines than he gets. EDWIN R. RULE of North Fork, California has been smoke chasing since 1927 and knows whereof he writes in *Incident Near Dirty Shirt Peak* (page 10). ISABELLE STORY, author of *Autumn in the Smokies* (page 14) is with the National Park Service. She has been too long without a by-line on these pages. O. A. FITZGERALD, prolific Idahoan whose writings appear in a wide variety of magazines, offers *Cash from Slash* on page 16.

VIN PARADIS, author of that entertaining fiction story, *The Bait Had Red Hair* (page 18), hails from Maynard, Massachusetts. There's

little doubt that RAY HOGAN is a fishing enthusiast, for this month the New Mexico writer follows his *Lady of the Lake* (June issue) with *Fishermen Have No Rights* (page 22). NELLIE BARNARD PARKER (*Through Yellowstone With a Pessimist*—page 26) hails from Mentone, California.

Our Readers Say—Last month in this column space was given Anthony Wayne Smith, District of Columbia attorney at law, to pose some questions on the Pacific Coast redwood problem, with particular emphasis on management practices and the well known Douglas Bill which advocated public purchase of the redwood belt and establishment of a national forest. Attorney Smith invited discussion on this subject, and first to reply was Selwyn J. Sharp, secretary of the California Redwood Association. He writes:

The question of support for or opposition to the Douglas Bill, which is the principal subject of Mr. Smith's letter, does not depend upon either forestry or conservation. It is wholly a question of extension of government ownership and federal control of a large part of the State of California and of all of an important industry.

There was a remarkable degree of unanimity in opposition to this legislation by the entire state and particularly by all interests in the region that the bill proposed to take over. We do not believe that *American Forests* would want to spare the space to enter into a lengthy discussion of the reasons for opposing this radical legislation. We do, however, wish to correct some of the statements that Mr. Smith makes in regard to forestry in the redwood area.

Mr. Smith says, "the timber industry contended, and apparently still contends, that redwood cannot be harvested selectively." Mr. Smith evidently has not been reading the data on forestry in the redwood region that has been widely published for more than 15 years.

There probably is no species that lends itself so well to selective cutting. Redwood forests are uneven aged and the species is remarkably tolerant. In the virgin forests are many relatively young trees which increase in rate of growth exceedingly rapidly as soon as they are released from competition of the older trees.

The rate of growth of these residual trees in a selectively cut redwood forest is quite phenomenal and will provide a high quality crop for relatively early second cutting. While these residuals are putting on additional volume and quality growth, they also shed seed for reforesting the gap made by the overmature trees. The wonderful stands of second growth redwood on some of the

early cutover land very conclusively proves this fact.

Selective cutting in the redwoods has been practiced ever since tractors of a size capable of handling the large redwood logs have been available. The first formal experiment in selective logging with tractors took place in 1934 and the practice increased rapidly from then on. Today it is standard practice in practically all of the redwood belt.

The only important exceptions are found in operations on which the topography is too steep to permit tractor logging and for winter logging. On these operations, block cutting experiments are being carried on to determine the feasibility of this method of reforestation through seeding from the uncut blocks supplemented by artificial seeding. Experiments are also being carried on with selective cutting on shows that have to be logged with cable.

Both the modern selective cutting with tractors and the early logging with oxen and light donkeys prove rather conclusively that selective cutting is the proper silvicultural method with which to harvest redwood to assure the best reproduction. Planting and artificial seeding will probably have an important supplemental place in the production of future crops, but experience in the past definitely indicates that they are not the best method of forestry for redwoods.

The very extensive experience with planting clear cut areas in the 20's showed that planting was not economically feasible because of the fact that the young trees require protection from drought and sun for survival during the first season. The forest practice rules established under the State Forest Practices Act recognize this fact and call for selective cutting and leaving of seed trees.

The redwood industry is fully aware that it is time to aggressively tackle the problem of producing timber to take the place of the virgin stands and they have been harvesting virgin stands with this in mind for many years. The fact that virgin timber that had been economically inaccessible became accessible during the war and is being harvested at an earlier date than was previously anticipated shortens the time in which the next crop must be ready for market. It has also accelerated the pace with which the industry is solving the problem.

The forestry practiced by major companies in the redwood industry, the active tree farm program that has been initiated, and the State Forest Practices Act are all contributing to the solution of the problem.

The industry does not claim that it is doing all that can be done or should be done. We are far from having reached perfection and also realize that there is much that we must learn about what must be done before we can reach the ultimate goal.

We do claim, however, that we have made significant and consistent advances and that the progress in the last few years has been most encouraging. Because of these and the many other facts, there is no probability that production will collapse and with it the economy of the entire region, as suggested by Mr. Smith, when the virgin timber is all harvested.

We will, of course, be glad to document the above statements and supply a great

(Turn to page 47)

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WASHINGTON LOOKOUT

By G. H. COLLINGWOOD

Appropriations—On July 2 and 3, well in advance of the confused adjournment of the 82nd Congress, appropriation bills for the Departments of Agriculture and Interior were cleared and sent to the President for signature. Few changes in any of the items affecting forestry had been made following earlier Senate action.

Appropriations for roads and trails under Forest Service administration were increased to \$11,000,000, and expenditures for forest acquisition, which had been set by the Senate at \$75,000 under the Weeks Act and \$141,680 to facilitate control of erosion and flood damage within several national forests, were restricted to lands which meet the approval of local governments and which are within the boundaries of a national forest.

The Interior bill carries \$11,000,000 for the Bureau of Land Management. This is less than the Senate figure, but exceeds by more than one and a quarter million dollars the amount approved by the House. Included is \$2,750,000 for construction of access roads on the O and C lands, but a proviso requires the costs to be taken from timber sales receipts before payment has been made to the counties.

The Paley Report—Perhaps more far reaching than any forestry legislation enacted by this Congress is an American forestry program proposed in the five volume report, "Resources for Freedom," released late in June by the President's Materials Policy Commission.

The report describes wood as one of the Nation's basic industrial materials, but points out that "total consumption of forest products was actually somewhat smaller in 1950 than it was in 1900, although during that period domestic consumption of farm products more than doubled and consumption of minerals reached six times the 1900 level."

To correct the difficulties which this implies, the Commission urges early adoption of a program which would require additional appropriations of about \$60,000,000 annually, with matching funds from the states to the amount of \$33,000,000. This would increase federal-state expenditures to approximately \$177,000,000 a year. In addition, a 15-year program with expenditures of \$360,000,000 for capital improvements on federally owned forest lands is proposed.

The latter sum would include \$150,000,000 for a five-year construction program of some 6000 miles of access roads to commercial forest lands administered by the Departments of Agriculture and Interior. This, says the Commission, would permit increased timber sales, whose returns would amount to nearly \$30,000,000 a year. The accelerated federal-state cooperative programs promise to cut in half present losses from fire and pests on commercial forests.

In addition, the cumulative effects of woodland management assistance, research, and education are expected, within 25 to 50 years, to increase the Nation's harvestable sawtimber by ten to 15 billion board feet a year. At 1950 stumpage prices, the report indicates this additional timber would be worth \$120,000,000 to \$170,000,000 annually.

The Commission's recommendations, in this case, are based on data furnished by the Forest Service. Data on other resources essential to the national economy were furnished by the responsible federal administrative agencies.

The American Forestry Association's study of privately owned forest lands for 1944-49 is the basis on which the Commission commends large commercial timber owners for remarkable advances made in the management of their forests. Backing up the commendation, it recommends:

"That the federal government raise the level of silvicultural work on its commercial timber lands at least to the level maintained on intensively managed private forest lands of comparable value."

Small privately owned forest holdings did not fare well with the Commission. The poor management by the many owners of this much larger acreage led to the conclusion that the Nation's forest situation remains critical.

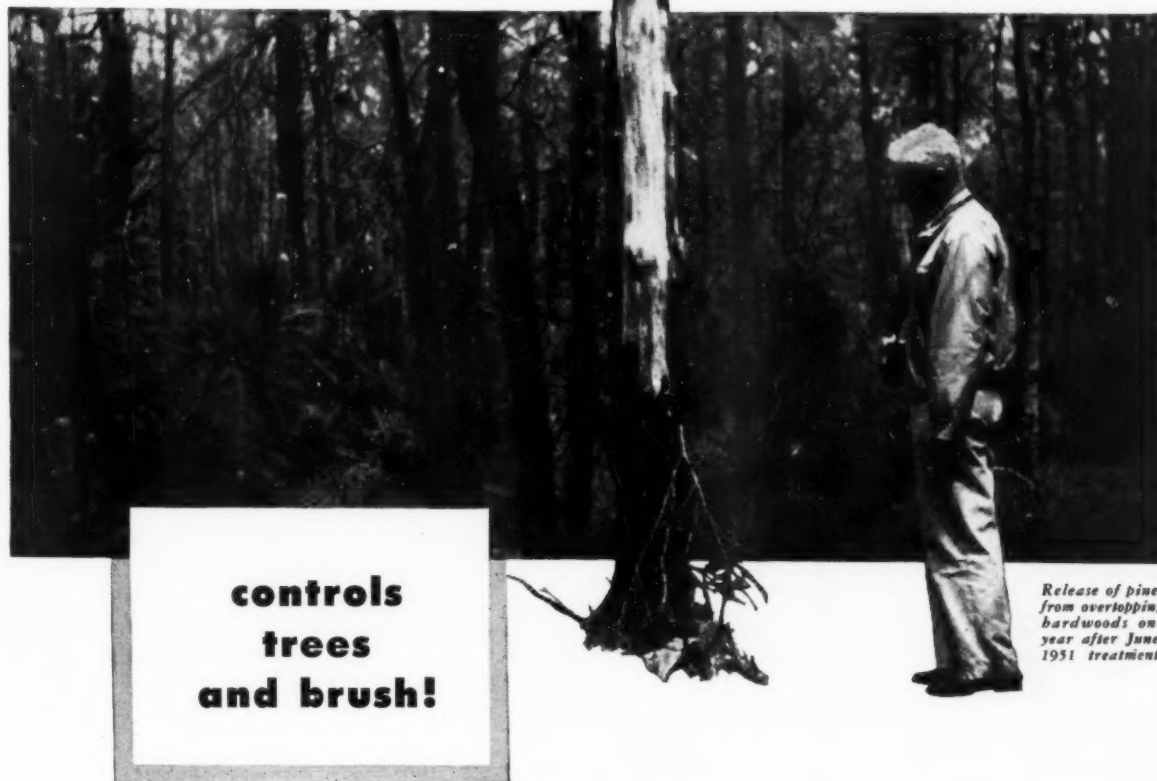
A dozen recommendations follow, designed to provide "enough timber to meet most current needs on a sustained-yield basis. . . and, in addition, to supply some exports." Together they would expand research in all phases of forest management and utilization; fulfill without delay authorized cooperative programs for forest fire control, aid for forest planting, and technical assistance to woodland owners and timber processors; put forest pest control on a par with fire control; encourage the substitution of yield taxes for ad valorem taxes on timber; set up a national system of forest credits and another for forest insurance, each to be taken over by private institutions as soon as possible; build more access roads to timber on federally owned and administered forest lands; improve protection, expand planting, and raise silvicultural standards on federal lands; and prohibit destructive cutting on privately owned lands.

The Commission recommends that this last should be the chief role of the federal government during the next five years, with assistance extended to the states that they may set up systems of compulsory regulation. To this end the recommendation specifies:

"That the federal government should provide financial assistance, perhaps up to three million dollars a year on a 50-50 matching basis, to the states for administration of their laws regulating cutting.

"That, if after five years there still remain important gaps in the state system of compulsory regulation, federal legislation should be enacted authorizing the federal government to establish minimum cutting practice regulations."

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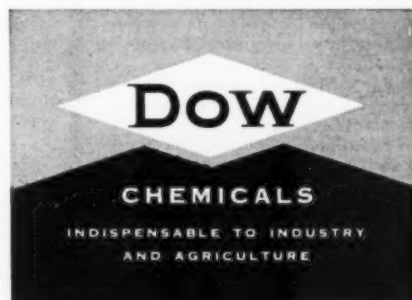
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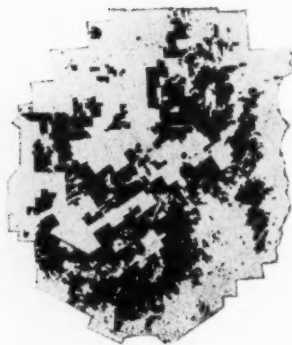
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ADIRONDACK



CATSKILL



Two prominent early-day leaders in *The American Forestry Association* played significant roles in establishment of the New York forest preserve. They were Dr. Bernard Edward Fernow, an AFA founder and for 15 years secretary and chairman of its executive committee, and Judge Warren Higley, AFA president in 1885-86.

Dr. Fernow was active in starting the forestry movement in New York and in 1885 formulated the legislation which established the forest preserve in the Adirondacks. Also embodied in that legislation were the first state forestry commission and first forest fire warden organization.

Judge Higley, another prime mover behind the early forestry movement, observed at an AFA annual meeting in 1885 that "preserving the forests must soon command the serious attention of the national and state governments." In that same year New York undertook public administration of its forests.

New York's spirited debate over whether to revise the rules governing use of its forest preserve still holds the attention of conservationists all over the nation. Primary issue; should the state-owned lands be kept . . .

FOREVER

REVIVAL late last year of New York's sometimes dormant but never dead debate over how best to use its vast forest preserves is still causing reverberations among conservationists all over the nation. Because fundamental forest use concepts are involved, the dispute is being viewed with interest and concern by many states. In its outcome they hope to find a pattern, or at least a precedent, for the solution to their own similar problems.

Crux of the controversy in the Empire State is interpretation of a "forever wild" provision (article XIV) in the state constitution. Regulating administration of nearly two and one-half million acres of state-owned forest lands (2,179,556 in the Adirondacks and 233,714 in the Catskills), this clause specifies that "the lands of the State now owned or hereafter acquired, constituting the Forest Preserve as now fixed by law, shall be forever kept as wild forest lands." It further states that "they shall not be leased, sold or exchanged or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed."

The proviso was written into the constitution in 1885 and was reaffirmed in the constitutional convention of 1938.

What ignited the latest, and perhaps most intense, flareup over its present-day virtues was a candid motion for re-appraisal by the New York State Conservation Department. The Department reasoned that technical knowledge on forestry practices and wildlife management that has accrued since the policy was decreed 67 years ago may have rendered it obsolescent and that the public has a right, as owners, to de-

termine if the rules governing use of the preserve should be revised to mesh with current needs and practices.

It was a bold gambit on the part of Commissioner Perry B. Duryea and his staff. While reaction to the suggestion was varied, there were few who questioned Duryea's courage and sincerity in risking his neck to get the issues out in the open.

The discussion since has followed a true "due process" course. After the Department, the administrative agency responsible for care of the preserve, had done everything within its province to initiate the re-examination and keep the public apprised of its progress the matter was turned over to a legislative committee for further study and recommendations. The procedure has been highly commended by professors of government at both Harvard and Yale.

When the Department first tossed this hot potato into the public forum it posed these four questions:

1. If the objective is preservation, are the forests best preserved by prohibiting cutting?
2. What is meant by "forever wild" and does it suggest an abundance of birds and animals and if so, does the present management policy promote that objective?
3. How does the present management policy as prescribed by the constitution contribute to the economic needs of the state and nation?
4. Under this policy is the most being made of the potential recreational value of the forest preserve?

Pertinent and provocative, the questions were catalytic in effect. Reaction was instantaneous from sportsmen, foresters, conservationists, preservationists, wildlife inter-

By KEITH R. MCCARTHY

WILD?

ests, recreationists, the public and the press. As the momentum mounted, the Department published unedited pro and con views in *The Conservationist*, the Department's official magazine. It was this, probably more than any one thing, that showed the outside observer where the battle lines were drawn.

Lined up on one side of the argument are those who contend:

The preserve actually can best be maintained and its use enjoyed by more people through an intelligent system of cutting mature trees;

Mature forests (the "forest primeval") are not and never have been a good habitat for game birds and animals; the tall trees throttle the ground growth for which game depends for both food and cover;

The state, without jeopardizing the recreational character of the preserve, could control fire hazard and reap annual revenue by systematic cutting. This revenue could be used to enlarge and develop the preserve;

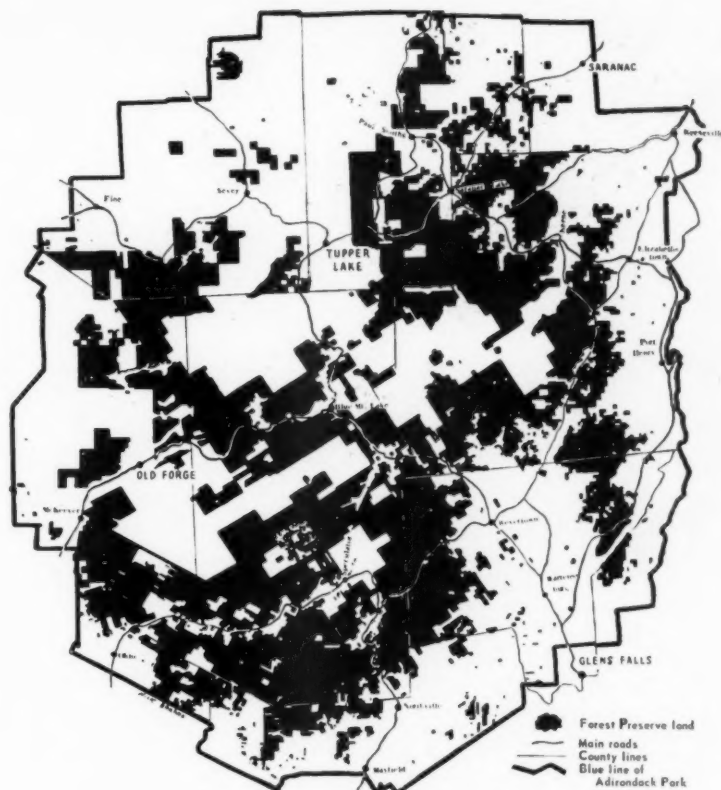
Failure to manage and harvest the forests deprives the state and nation of valuable and, in these times, critical materials.

Taking the opposite point of view are those who maintain:

The policy has stood since 1885 and has protected the forests against exploitation and despoliation;

Permitting controlled lumbering would be the "opening wedge" for destruction and defacement of the wild areas; other commercial interests, under the excuse of flood control or power development, would move in and the people would gradually lose their most priceless heritage;

The present officials in the Department of Conservation could be trusted to act in the people's interest, but supposing at some future



New York Conservation Department photos
Adirondack Park, with state-owned forest land in solid black. Note intermingling areas of private land (white)

time these offices "fell among thieves" who could be seduced by bribes or graft.

Each side numbers among its champions prominent spokesmen not only from New York but from other parts of the country as well. Their articulate opinions have done much to crystalize the dispute's complex ramifications into concise, fundamental issues. Following are some of the more influential for and against views printed unedited in *The Conservationist*.

On the question of controlled cutting of timber on the preserve, Ira N. Gabrielson, president of the Wildlife Management Institute, had this to say:

"There is little question that if the basic concept were changed from the present one of preserving a wild forested area more or less as a primitive or wilderness area—in which developments are rigidly limited and on which no management of timber or wildlife is possible—to that of a managed area, that some economic returns could be received from the timber, as well as greater annual crops of wildlife, particularly deer.

"The fact that a considerable part of the area has been in young second growth that provided much natural food has been one of the reasons for the maintenance of the present deer herds. It can be confidently expected that as this forest matures, deer population will be less than at present. It is also true that proper forest management, carefully controlled, could take an annual timber harvest without unduly disturbing the scenery or the other values except those that could be considered pure wilderness values. A combination of good forestry and good wildlife management could unquestionably produce a fairly stable crop of both timber and wildlife."

Gabrielson favored zoning as the best way of protecting the pure wilderness values while permitting management on the units that have little or no wilderness character, but good management possibilities. He said if carefully worked out this "could retain and perhaps even strengthen the present protection of the wilderness values."

(Zoning, as proposed by the Con-



The 1950 blowdown, during which half a million acres of timber were leveled, found easy victims among Adirondack's overmature hardwoods

servation Department and favored by Gabrielson and many others, has emerged as probably the most logical solution to the problem. The "shot-gun" pattern of the preserve—neither the Adirondack nor Catskill sections are in solid blocks—lends itself more to a "what's best for this locality" approach than to a blanket administrative formula.)

Paul Schaefer, a director of the New York State Conservation Council, took the view that the most eloquent and compelling argument against lumbering the forest preserve are to be found in the mountains themselves. He said:

"To pierce our scattered wild places with a network of lumber roads, to destroy the quiet of the woods with the roar of bulldozers, chain saws and trucks, and to eliminate 'mature forest trees' from the Adirondack and Catskill Forest Preserve regions is to destroy the most precious and irreplaceable natural resource New York State possesses."

Schaefer was emphatic in denying that the forest preserve is locked up, saying, "A thousand miles of paved highway and several thousand miles of secondary roads provide easy primary access to state lands. . . . Additional thousands of miles of good forest trails permit hunters, fishermen and hikers to reach virtually all the lakes and streams not accessible by highway."

"What we really need is more, not less, land devoted to the multiple uses possible under the existing con-

stitution. We can then provide maximum benefits to the increasingly large number of people who are being attracted to these magnificent regions by their wild forest character, an element which is vanishing from the American landscape with appalling rapidity."

The questions raised over the meaning of "forever wild" prompted some of the most pointed discussion.

John E. Hammett, chairman, Committee for the Conservation of Forests and Wildlife, Camp Fire Club of America, said:

"Of course these words suggest birds and animals but not certainly an 'abundance' of bird and animal life. The primary purpose was and still is to protect the forest cover. Bird and animal life is an incident desirable, but not the main objective, of the forever wild mandate."

Frederick T. Kelsey, president, The Association for the Protection of the Adirondacks, said this of "forever wild."

"If we examine the past history of these forests the definition of 'forever wild,' as it should now be applied to our Adirondack forests, is not difficult to determine. The abundance or non-abundance of bird and animal life is an incident of a wild forest dependent upon many factors extraneous to the growth of trees. Our constitutional provision did not direct forests to be administered as a game management area but limited it to the terse and direct statement 'they shall forever

be kept as wild forest lands.' The lands as Nature made them and as man found them."

William Pearson Tolley, chancellor of Syracuse University summed up his opinion on the factious phrase with this quote from James Russell Lowell: "New occasions teach new duties, time makes ancient good uncouth."

Tolley said that with the passage of years "it is more and more evident that the constitutional provision is a legal strait jacket which denies to the State the right to make intelligent use of its forests."

"It is no secret that the constitutional clause which requires the forest preserve to be retained in a 'forever wild' condition has contributed to great waste of timber resources and likewise has made it impossible to take full advantage of the opportunities these lands offer for recreation and wildlife development."

"The blowdown in 1950 (during which nearly half a million acres of timber were leveled) illustrates the need to bring the constitution up to date. Everything that has been done in the salvage of timber is probably a violation of the constitution. The common sense steps that have been taken may in fact be a contravention of the law . . . Destruction of timber by the acts of nature cannot be prevented by legislation. The storm of November 25, 1950 found its easiest victims in old spruce stands and among overmature hardwoods . . . Judicious cutting in the forest, when trees have moved past the peak of development can serve to moderate the effects of the forces of nature and



lessen the chances of destruction.

"It is clear that the lands of the Forest Preserve should be carefully classified into potential uses. Some should be developed primarily for recreation and watershed protection and kept 'forever wild.' These are the remote and rugged areas. Some should be developed for intensive recreation. There should be camp grounds, well kept trails, bathing beaches, and similar facilities. Some that have neither the features of remoteness or ruggedness, or any recreational attraction might appropriately be developed for timber production. Many areas will be more useful for recreation, particularly hunting, if timber cutting is permitted.

"This improves conditions for wildlife, makes land more accessible for the hunter even though no permanent roads are developed. Special care, of course, needs to be taken to preserve natural roadsides, scenic vistas, and other features for the traveling tourist. Of importance should be the preservation of the spirit of the wilderness for those rugged souls who have the time, physical energy and the will to enjoy nature as God made it. Properly administered the Adirondacks and Catskills can meet all of these demands."

Gerald Kenwell, Adirondack woodsman and guide for 50 years, looked at it this way:

"When I stand on one of these mountain tops looking out over this scene of panorama grandeur, I have a feeling of selfishness. Why should only I and very few others have such a thrill and so many others be deprived of it? They are just as much



Many New Yorkers cite the true wilderness beauty of the Adirondacks as an argument that the forest preserve should be left "forever wild"

a part of buying this beauty as myself. Why not make a few alterations (by referendum) in our Constitution and make it possible for others to enjoy this privilege?"

On the question of how the present management policy is contributing to the economic needs of the state and nation, Col. William B. Greeley, former chief of the U. S. Forest Service and now vice-president of the West Coast Lumbermen's Association, said:

"It is presumptuous to lob an opinion across the continent from Puget Sound and expect to hit a target on the forest preserves of New York. . . But I have accepted Mr.

Fosburgh's (P. W. Fosburgh, editor of *The Conservationist*) invitation to throw in a few words because many of these questions are nationwide and must be answered in the administration of other public forests.

"... Industrial needs for wood and water become more universal as the technological advances in the use of wood expand in many directions. New York herself is an excellent illustration of this phase of necessary conservation. New York consumes a billion and a half feet of lumber every year in her construction, furniture, and other wood-working industries, but has to import 69 percent of its lumber from other states or from abroad.

"New York has been the leader for many years in the marvelous expansion of paper and fibre products. She is the Number One state in the manufacture of paper, but imports four-fifths of her raw material as wood or wood pulp. New York's forest industries carried payrolls of \$422,000,000 in 1947—certainly an economic and social resource worthy of conservation.

"Having watched the growth in the many pressures of people upon natural resources for nearly 50 years, the main point which impresses me is the lesson of one of the parables in the Bible. No state, in these days, should take its talents in forest resources and hide them out somewhere in the desert. They should be

(Turn to page 43)

Even salvage of blowdown timber on the preserve (an imperative fire protection measure) may be a violation of Empire State constitution





INCIDENT Near

FIRE in the Piutes in 1942 did an artistic little engraving job on my memory. Memory, that rear-view mirror of the mind, five years later in 1947 gave me a perfect vision or flash-back of the original work of art. It was done with split-second timing and beautiful illumination bordered with shudders.

May I observe that the clean wind-shield of foresight isn't enough in some emergencies; but a good, clean, dependable rear-view mirror is a handy gadget to have installed in the noggin?

Witches brewed bitter tea in the Sierras in 1947 after first experimenting down in the Piutes in '42.

If you've driven east from Bakersfield, California, skirting the oil fields and then on up the twisting Kern River Canyon, you emerged from this scenic gorge to find yourself well on the way to Walker's Pass. Only a few miles along this upland valley stands the Isabella Ranger Station, lonely outpost of your Forest Service, cradled in the Piute Range. And it was in this area after two days and nights fighting a man-caused fire that we found victory sweetly near.

Midafternoon found us on patrol. The same pitiless heat which only a dozen or so miles to the south of us burnt down on the Mojave, struck at us impersonally as from a furnace. It struck at the rocks, at the sand;

and it struck down into a vast, unburned area which lay between encircling firetrails.

We looked into this no-man's land from a vantage point midway on a ridge, a part of which was our sector to watch. Full-flowered yuccas stretched their lonesome heads in a hit-and-miss pattern near the top of the slope. In a forbidding tangle at the bottom and part way up the sides of this devil's washtub was a maze of semi-desert growth, scrub trees, and brush. Natural fire fuel.

The fire had already swept up the ridges, but had died down and was burning desultorily around the lower fringe of the unburned mass lying along the bottom. Now and then a manzanita would flare up and as quickly die down. Ground fire in the dead grass crept slowly. It was a lifeless demonstration.

So my companion and I sought a pinpoint of shade under a scrub oak back from the crest, and had a smoke. There was no taste to the cigarette, I remember. Our canteen water had long since been stinking hot. We were safe enough on our bare ridge. We relaxed.

Suddenly we were brought alert by a muffled roar. We bounced up, made our way to the rim-rock, and looked down into hell's acres.

A patch of brush was now burning fiercely. Burning leaves were

By EDWIN R. RULE

This is the raw and penetrating account of a fight against fire. It is a story of duty, valor, anger, confusion, frustration and terror—the acutely-felt, but rarely translated, emotions of men on the line

Dirty Shirt Peak



swirling up-canyon. Some of the larger trees were ablaze. In less time than it takes to recite the 23rd Psalm (we had been dreaming about green pastures and cool waters), the fire had pushed along a quarter of a mile. Now the compounded heat of itself had created its own vacuum. Into this void the fire front rolled and rushed and roared. Unharnessed hell, a wild dragon of a fire charging on up the canyon.

Now it was abreast of us down in that devil's gulch. As the thing stood on its hind legs, it snorted flame 75 to a 100 feet in the air, as though straining to singe the very sky. Then it was past us, scrouging and clawing, devouring everything. Finally it ran out of fuel and stopped.

While all this was taking place, we hadn't spoken a word. There was our grandstand seat at one of nature's most spectacular dramas. From that first explosive general ignition which had unleashed this dash, the whole thing had taken only a few minutes. Maybe a new track record for two miles.

There was the picture, the first impression, the original etching in 1942. Tooled on the mind was the topography of the scene, the incredible speed of the fire, and its awesome destructive powers. More than that—there was the warning, a warning remembered in 1947.

The Sierra snowpack five years

later failed to build up to previous years' depth. In early spring, streams, which normally would run most of the summer, were reduced to a mere trickle. Some of the rainbow trout, half in and half out of their poverty-stricken creeks, sported sunburnt backs; and when caught, they were already nearly broiled. Well—

The 50-man Blister Rust Camp at Summit, a few miles south of the Yosemite National Park south entrance, was a scene of peace that Sunday in August. Right after noon near-vertical shadows from the towering sugar pine, cedar, and fir cast exquisite reproductions of their branches on the shimmeringly white canvas of the tents.

Some men were doing the week's washing, others were reading, and a few were writing letters. A grand, lazy day of peace, rest, and quiet. One man was on duty, ear keyed for the telephone.

The last newscast with local implications reiterated that forest fire danger stood at an all-time high. A long, dry season, low humidity, extreme heat, moderate winds, a horde of tourists.

We didn't know it at the time, but when the clock said 3:30 of that Sunday afternoon, all the ingredients of tragedy were being stirred in a remote spot of our picturesque Sierra. And like other disasters involving human carelessness, erring,

or plotting, this witches' brew need never have boiled.

Ph.D.'s have been conferred for less than proving the thesis that the elements of the greatest tragedies may be resolved to very simple terms. It was a simple act for our character to walk into his backyard at the foot of the mountain and light the paper in a garbage can. Forest Service regulations for the locality forbade this kind of thing until 4:30 p.m. Our man performed the routine act at 3:30 p.m., when the winds still had purpose and strength.

It was a doubly simple act of nature to send along a gust of wind at the crucial moment and transfer a piece of burning paper from garbage can to punk-dry grass at the base of the mountain. And it was basically in the ravishing nature of fire itself, once given this wonderful opportunity, to rush up the mountain side.

This was the beginning of the Indian Flat fire, the prologue to a miracle of eventually successful effort. And for some of us it was the cause of an incident which took place in the shadow of Dirty Shirt Peak.

Within 30 minutes after the telephone jangled two longs and a short for Summit Camp, the men had eaten and put up lunches, filled canteens, and were loaded on the truck. We were off for Indian Flat via Wa-

"New trails on new ridges. Fall back and start again. . ."





"It's no shrinkage of guts; it's merely a subduing of volunteerism"

wona, the Yosemite Valley and El Portal.

Funny thing about trucking grimly toward a fire while the Yosemite tourists whizzed by in vacation mood. Look at 'em. They don't even give us a tumble. Same old thought, "Don't they know there's a war on?"

And when on a curve one approaching driver slipped over on our side of the white line, my pal in the front seat and I cursed in unison, "Damned civilians." It was ludicrous, of course. We had become civilians, too. But it was a good way to relieve pressure, and harmless.

We didn't mean what we said any more than the service man meant it during the war. Not as an all-embracing term. Why, some of their sweethearts and mothers and fathers and sons turned out to be civilians . . . on second thought. What they meant, and what we meant, and what the boy on the bicycle with the telegram means, and what everyone who is trying to reach somewhere in the line of duty or of obligation means, in his exasperation, "Don't they realize I have a mission? That

there's a job to do?" And at the time we didn't consider that a month from then, or ten years from then, it might be the other guy who would have a mission, and we the happy, carefree vacationers.

About ten miles southwest of The Valley, the little oasis of Indian Flat boasted a couple of bars and restaurants and a service station. Also, a public camp ground. The fire camp was established in a narrow area between the Merced River and the highway, on the public camp ground site. North of the river is the Stanislaus National Forest, while to the south is the glacier-scarred outpost of our own Sierra.

At the hour we pulled in, the Sierra side from the highway on up was a sheet of flame. The reaction of the men was simply, "helluva fire;" and everyone felt tired right away. That is, those did who had been on fires before and had let their imaginations take off.

The others merely gazed and wondered, awestruck, or slightly and inexplicably scared. Firefighters, like soldiers, produce a raft of "eager

beavers" in camp. Extra money! Overtime! Let's go! But when the smoke of battle develops, the old camp, just left, seems like a mighty good place; and the extra money is forgotten.

It's no shrinkage of guts; it's merely a subduing of volunteerism, a drawing of eagerness, a new appraisal of what it all might mean in the way of personal discomfort. That discomfort was to be experienced very soon.

Since this is not a complete history of the Indian Flat fire, but only one phase thereof, we skip the first two days. During the primary struggle, miles of trail were built by hacking, grubbing, sweating, unsung heroes. These miles of firebreak were then discarded as sparks leaped the puny, man-made barriers. New trails up new ridges. Fall back and start again.

Sierra National Forest headquarters at North Fork, California, became more and more concerned as reports raced over the wires. On to the scene came "Old Stormy," as we called him, veteran firefighter, skillful at appraising where, when, and how to strike a moving forest fire.

There came Jess, timber sale expert and forest administrator, a firefighting general in demand by neighboring forests. And so were they all in demand, the Sierra men. Ask them for their mileage records, their diaries. You'll find a fair history of fire warfare in California for last year and years before.

And there were hard-bitten forest rangers: Pete could give you their names. And there were scores of fire leaders whom I'd like to report, but cannot. There was Mac who saw to it that we had plenty of cigarettes, that we got fed and bedded down, and that we got all the breaks consistent with the situation. I hereby give you all the assistants in the camp, tireless workers and efficient.

And I give you 11 a.m., of the third day. *And you can't give it back.*

Dead tired the night before, we had sponged off in the cool, green waters of the Merced, and hit the sack. Surface nerves taut, it took some time for sleep to pull down the shutters. But no sooner had that happened, it seemed, than someone shook my shoulder.

It was Mac. "Get your men up, Ed." I shook each recumbent form. Sand and rocks and burrs and sticks had formed the common mattress. The ants weren't union, and had

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"Mac saw to it that we got fed and bedded down"



YOUR SHADE TREES



Diagnosing Tree Troubles

By R. R. FENSKA

IT is more difficult to diagnose tree trouble than human ailments because trees cannot talk. When the medical doctor taps your body in different places you yell, "OUCH," if he hits a sore spot. Not so when you prod a tree. The only way we can detect anything wrong with a tree is when we find an abnormal condition.

We call them symptoms. They indicate the presence of a disease, attack by insects, or abnormal function of certain parts of the tree. Some ailments, however, produce symptoms which to the untrained eye resemble conditions caused by entirely different agents, such as fungi, bacteria or virus infections. Without the aid of a "voice" to give you "inside information" you may be baffled.

Once the tree doctor has found the real cause of the symptom he can usually prescribe a remedy, but *not always*.

We know a great deal more about the human body than we do regarding the functions of different plant tissues and yet there are many cases when the medical doctor is not certain of the cause and calls in specialists for consultation.

We have similar conditions with tree ailments. Sometimes the tree expert will consult an entomologist or a pathologist, forester, or a soil chemist. Even after such consultations the cause of the trouble cannot always be determined. Many tree diseases are not fully understood as yet, and all may never be.

When the condition of a tree appears abnormal a systematic procedure to discover the cause of the trouble must be made.

First, the identity of the tree under investigation must be deter-

Mr. Fenska, conductor of this series, is author of the well-known *Tree Experts Manual*, now being revised for third printing.

mined. Some species of trees are subject to certain diseases, while others are immune to the same diseases.

A knowledge of the structure of a tree, as well as the function of each part must be known, besides the reaction of a normal tree to any change in its environment. Furthermore, it is usually desirable to know the rate of growth during the past few years, the condition of the foliage, and the tree's soil and water supply. Therefore, at least a general knowledge of tree growth is necessary before we can proceed to determine the ailment. Any special knowledge of dendrology, plant anatomy, plant physiology, silvics, entomology, plant pathology, ecology, or soil science will help.

Only our more common tree troubles and the manner of diagnosing them from symptoms can be given in this article. These are as follows:

Insect Damage to Foliage. When the foliage of a tree shows damage by insects, it is necessary to determine whether the injury is due to a sucking, or a chewing insect. Both may be controlled by spraying, but the chewing insects (leaf eaters) require a stomach poison while the sucking insects must be hit with a contact spray.

The leaf eaters chew holes in the leaves or sometimes devour only the tissues on the underside of the leaf. On the other hand the sucking insects eat no foliage but simply suck the plant juices from the leaves the way mosquitos suck your blood.

The leaves where the plant juice has been extracted have a mottled, sickly appearance in contrast to a healthy green color. One must, however, distinguish between holes eaten by insects and those due to a fungous disease, such as the "shot-hole fungus" sometimes found on Japanese plum trees. A close observation will distinguish the difference.

Wilting of Foliage. This may be due to lack of sufficient soil moisture or an internal infection with a fungous parasite in the roots, trunk or branches. Borers in the sapwood may also be responsible for the wilting of foliage. The lack of water is usually indicated when the entire crown of the tree shows a gradual wilting of the foliage. Where leaves on isolated or scattered branches lose

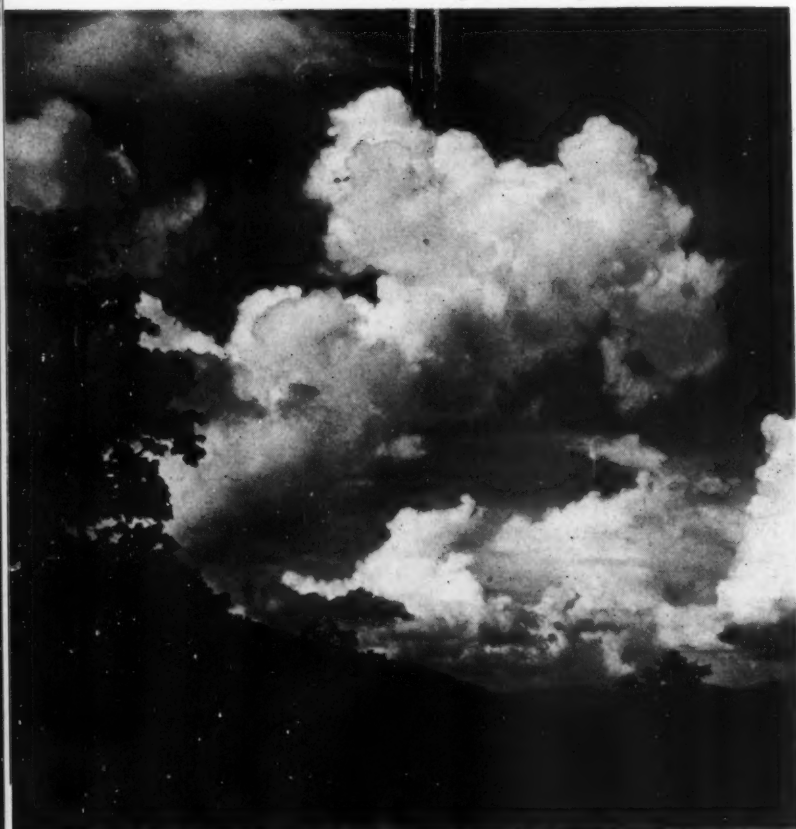
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By ISABELLE STORY

The floral symphony of these magnificent mountains begins in February and lasts until December. But it is in October that it reaches a crescendo of flaming beauty

Down the valley from Fighting Creek Gap lies Gatlinburg, Tennessee, headquarters of park



AUTUMN INT

THE floral symphony of the Great Smoky Mountains region, which begins in February and continues into December, comes to a crescendo of flaming beauty in the autumn, when the hardwood foliage is an extravaganza of multi-colored brilliance.

The Great Smoky Mountains National Park lies in the heart of this rich scenic country, believed by prominent botanists to be the cradle of the present vegetation of eastern United States. Here we have one of the largest areas of contiguous forest in eastern North America; but the sheer size of the forest is no more striking than the variety of its composition.

And added to immensity of mass and of species is the great size attained by the trees and shrubs. "Thar's giants in them Smokies," say some of the old mountaineers. And of the rhododendron, "He's the boss." However you look at it, the region is one of Nature's great arboretums.

Since the Great Smoky Mountains are among the oldest in the world, the park's primeval forests—some 200,000 acres of them—are of great age. Today these forests stand much as they did when the first Europeans sought sanctuary on this continent.

AMERICAN FORESTS



South Chimney from North Chimney, one of the many scenic treats in store for members attending AFA's annual meeting October 12-15 in Asheville, North Carolina. Mount Mingus is at left

National Park Service photos

THE GREAT SMOKIES

Old trees, it is true, have fallen; but new ones have sprung up. That is what makes the forest primeval, the forest changed by Nature, but not by man.

Within the park area alone grow some 1300 tree, shrub, and herb varieties. The unbroken forest cover—one that cannot be matched anywhere in the eastern part of the continent—crowns the high peaks with spruce and fir, and carpets the mountainsides with a vast wealth of deciduous trees.

When autumn comes, these deciduous trees and many of the shrubs that put on the great spring show present a breath-taking color pageant. The oaks turn wine-red or bronze. The maples are scarlet. Tuliptrees, birch, beech, and basswood flaunt their golden yellows. The sweet gum adds purple to Nature's palette and rich reds are contributed by the sumac, sourwood, and sassafras.

Other species add buffs and dark tans and browns, all intermingling not only with each other but with the different greens of the rhododendron, mountain laurel, hemlock, spruce, and fir. Over all a golden glow seems to hang. And each day there is a changing color scheme and the angle or altitude of vistas are

constantly altered by perspective. The play of the sun's rays and the shadows cast by the clouds that float overhead add to the shifting panorama.

At the higher elevations the foliage begins to change in September. By October the leaf coloring reaches its peak. Then the great variety of trees and shrubs growing below the 4000-foot altitude reach their greatest glory. Along the entire course of the Little River, and on the sides of the transmountain highway below 4000 feet, the foliage usually is at its best during the last half of the month.

Many wildflowers resist the early frosts throughout the colorful month of October. The bright hues frequently last well into November, and the witch-hazel tree often holds its blossoms into December.

The late Dr. H. M. Jennison, who spent many seasons in the Great Smoky Mountains National Park, described the several factors that unite to cause the riot of autumnal color.

Frost, he said, is only one of several environmental factors making up the exhibit, though it is an important one. Wind and rainfall (and this is a land of tremendous rainfall)

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Greenbrier Pinnacle, where one of many fire lookouts commands panoramic view





CASH FROM SLASH

Shrugged off a quarter century ago as a "screwy idea," the portable slash chipper may soon make its debut in big-time forestry. It's already proved its mettle on the farm woodlot

TWENTY-FOUR years ago, at a meeting of the Society of American Foresters in Missoula, Montana, the world-famous forester, Dr. Carl A. Schenck of Germany, forecast a machine that would go through the woods behind the loggers, grind up slash and strew it on the ground. Tolerant but skeptical smiles greeted that prediction.

Now it turns out that one of those smiling skeptics actually has been proving that Dr. Schenck's "screwy

By O. A. FITZGERALD

idea" wasn't so screwy after all. And so the portable chipper, now doing right well in the farm woodlot, appears headed for the big time, where the residue from a few hundred acres left by loggers could equal that in all the woodlots in a whole state!

Slash disposal researchers at the University of Idaho made history last summer when they rolled a portable chipper into the white pine

forests of Idaho's panhandle. It was part of a demonstration of new equipment and methods for handling slash put on by Potlatch Forests, Inc., the Clearwater and Potlatch Timber Protective Associations and the University.

Loggers who never before had seen a portable chipper in operation went home speculating on possible big-scale use, such as mounting it on a tractor with power take-off or on skids and towing it along the logging

roads or skid trails. Such speculation was to be expected. Out here, everyone in big-time logging, from lumberjacks to lumber company bosses, is taking a long look at the whole slash question.

"The chipper gives us another choice in handling slash," was the terse appraisal of Dave S. Olson, research silviculturist on the Idaho project and one of the skeptics at that Missoula meeting. For a month Olson literally lived with the machine as it was used under different but typical woods conditions.

"As we are getting into our young-er stands, foresters are advocating partial cutting instead of clear cutting," Olson elaborates. "Under this method of harvesting, we often have both the problems of slash disposal to reduce the fire hazard and the danger of injuring the remaining trees by burning it. The wood chipper meets both."

Pieces of slash up to four inches in diameter were greedily chewed by the machine. Tops of trees, even those of cedar ten to 15 feet in length, were quickly ground to chips. Three men tossing slash couldn't keep the chipper going at capacity.

Raw material for the chipper is the lighter, bulkier slash which ordinarily is the worst flash fire hazard. Measuring piles of slash, putting them through the chipper and measuring again, the University researchers found that five cubic feet of fire-hazard slash quickly became about one cubic foot of practically fireproof chips.

What to do with the chips?

"Because of the bark and needles, they cannot go to our pulp mills," explains Dr. E. E. Hubert, research forest pathologist on the Idaho project.

"Promising large-scale potential outlets are in livestock and poultry fields. Chips could be used as bedding and yard covering for livestock, litter for poultry houses. Some could even be spread along forest roads and logging skidways to reduce erosion.

"Chips broadcast in the forest would pay off in the future by helping to maintain tree-producing capacity of the soil. With the largest chips about the size of a potato chip, this material will pack solidly near the ground and decompose speedily."

Idaho's forestry dean, however, warns against counting out the pulp mills as possible outlets for slash chips.

"I believe it's only a question of
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Loggers who saw a recent demonstration of this portable slash chipper in Idaho were quick to recognize its great potential



Fire Warden A. B. Curtis hefts chips, each cubic foot of which was about five cubic feet of slash before going through chipper

Another new slash handling tool. This roller-cutter-crusher breaks up slash, crushes it into ground to speed decomposition





THE tune Rory McDevitt was whistling as he turned the corner gurgled suddenly deep in his throat. He stopped short, a surprised expression on his face, and stared at the girl as though he'd never seen one before. It was not an unusual reaction because she was sitting in his new station wagon, playing his radio and drumming on his dashboard, thoroughly familiar with everything but Rory McDevitt.

He watched her curiously for several seconds, then walked around the car and rested an elbow across the open window.

"You can't be standard equipment," he said pleasantly. "An accessory, maybe?"

Cool blue eyes measured his tanned features, slid the length of his six feet, and seemed to shrug with her shoulders. She spoke one word.

"Goodbye," she said.

"That happens to be my car you're sitting in," he told her, still pleasantly. "That's my radio you're playing and my ashtray you're using. I presume you're smoking your own cigarettes?"

The blue eyes smiled suddenly. "Then I must be talking to Mr. Rory McDevitt?"

He nodded gravely.

"And you own Bassmouth Lodge?"

He nodded again, frowning a little. "Your vacation idea has just split a switch," he said. "You can't play any radios or use any ashtrays at Bassmouth. It's a male outfit. Strictly for the man who wants to get away from feminine influence and..."

THE BAIT HAD RED HAIR

By VIN PARADIS

Rory, once hooked and twice shy, swore he wouldn't bite

again. Being played by one female was enough. But that was before Kate Laffin tried a lure of a different color

"You misunderstand me, Mr. McDevitt." She reached across his front seat and turned off his radio. "I'm your new chef."

He looked startled. "My what!"

"I just talked to the man who used to have the job. He was flirting with me at the station and he said. . ."

"That's all," Rory interrupted mildly. "I expect to hire an experienced man. If you'll climb out of there now, I'll be on my way." He walked around the car again, settled himself behind the wheel.

The blue eyes suddenly filled with tears. "Please don't send me away, Mr. McDevitt. I need the job badly. I. . ."

"Hey!" he exclaimed excitedly. "You can't do that. It isn't necessary and it bothers me."

"It does?" She started to cry.

"I'll drive you to the station," he suggested hastily. "By the time you get back to your husband he won't even remember you had a quarrel."

"I don't have a husband," she said, crying harder. "I don't need a husband. I need a job."

Rory glanced at an amused spectator and squirmed uncomfortably. "How do I know you can cook?" he asked. "Any references?"

"Did you ever see a woman who couldn't? They do it naturally. It's instinct or something."

"Oh." He looked somewhat dubious. "Suppose I gave you a trial and then you. . ."

She stopped crying abruptly. "Thank you," she said.

"I didn't say that. I was just supposing."

She started crying again.

"Darn it!" he exclaimed, a pained expression on his face. "Can't you stop that nonsense? There's a man watching us and he might think I'm hurting you."

She cried harder.

"All right." He sighed heavily, edged the car out of its parking space and started down the street. "We'll give it a try. Where's your baggage?"

"I don't have any baggage."

"No baggage?" Rory frowned, pulled the car back to the curb. "What's your name and what are you running away from?" He twisted around in his seat and studied her suspiciously.

"Kate. Kate Laffin. And I'm not running away from anything. You can believe it."

"I'm not so sure," he told her flatly. "How do I know you're not trying to hide from the police? A lodge like Bassmouth. . ."

"Do I look like a criminal?" she demanded hotly.

Rory studied her again, shamelessly. She had hair the color of red cedar and a figure that was excellent arithmetic. She flushed under his roving eye, started to say something, changed her mind.

Rory said, "I could be wrong."

She smiled, patted his hand, and a tingling sensation raced the length of his arm and exploded under his shirt.

"Of course you are," she said.

"You don't look like a chef, either," he said distractedly. "You're too beautiful."

"Thank you." She patted his hand again. "Shall we go now?"

Rory began to fight what he thought had to be a sudden attack of summer fever. It couldn't be otherwise because girls just didn't attract him anymore. Not since Sandra, anyway. She made him think girls fished the male pool for the sport of it. They seemed to practice throwing their catches back to be caught again. The experience made him extremely wary of bait dangling at the end of a hairpin.

Sandra Evans had been delectable bait. He admitted it because it was true. She was blonde and beautiful. She had a smile that made him think he was looking at an angel. But that same smile reminded him of something else when she coldly ripped the hook out of his mouth ten months before.

Money, that was it. She worshipped the stuff. She didn't like it when he decided to buy Bassmouth Lodge instead of investing in her father's travel agency. She wanted a better life and it didn't include playing nursemaid to a mess of trout. Under the circumstances, Rory considered his purchase a lucky one. Sandra and her father used different language.

Now he had the nasty feeling he was about to be hooked again. She sat there beside him, playing his radio as though she owned it, looking more like a redheaded devil than an angel. She was a chef, she said.

The redhead wanted him to understand she was a nice girl. Sandra was a nice girl until he bought the lodge. The redhead wanted him to understand she wasn't a criminal. Sandra wasn't a criminal, either. You can't be arrested for taking your hook out of the mouth of a fish you don't want to play anymore.

The redhead wanted a job and a place to stay. She was desperate, she said. But she wouldn't answer

his questions and that needled his suspicions all over again. By the time they arrived at the lodge, his curiosity demanded to know why she was willing to bury her beauty in the woods some 20 miles from the nearest town.

He left her in the kitchen reluctantly, cursing himself for letting a sudden flow of tears influence his better judgment. He'd been allergic to the feminine half of things for almost a year. He had his lodge, his guests and his angling excursions. He wanted to keep it that way. It was bait he could nibble safely because he owned the tackle.

Thinking these things, he spent the rest of the afternoon working on a new cabin. And then, his thoughts abruptly curious about the redhead, he wandered toward the kitchen to observe her preparation of the evening meal. He found her standing in front of the sink, gingerly holding a trout by the tail, a distasteful expression on her face.

"Well!" he exclaimed cheerfully. "Do you plan to swallow it whole or cook it?"

She whirled at the sound of his voice and stabbed him with a baleful glare.

"What kind of a place is this?" she demanded. "Some lunatic walked in here a few minutes ago and practically threw this thing at me."

"Lunatic?" Rory moved toward her, smiling a little. "And what did this—ah, lunatic say?"

She stared at the trout for an instant, dropped it into the sink with a shudder. "He tried to tell me a little thing like this tipped his canoe



over. If he thinks I'm going to cook a fish just for him, he's. . ."

"The man is proud of his catch," Rory interrupted mildly. "He has a right to eat it. That's a rule around here."

"It was a rule around here," she retorted. "He'll eat what the rest of them eat and like it."

Rory was silent a moment. "Suppose you tell me what's on the menu tonight?"

"Shrimp salad, potato chips and coffee."

"What!" He laughed outright. "And you propose to feed that to a hungry group of sportsmen?"

"What's the matter with it?" she demanded, her blue eyes defiant. "It's been a hot day and. . ."

Rory glanced down at her, fighting what he had to say. He felt like a fish unable to shake the hook out of its mouth. She was the prettiest girl he had ever known.

"I'm sorry," he said rapidly, avoiding her eyes. "I'll take you back to town the first thing in the morning."

A tear glistened on her cheek, multiplied instantly.

Rory winched. "You can see it's necessary," he said. "This is a professional proposition. I make my living here."

She cried aloud.

"Tears won't help you this time," he said gruffly. "Besides it isn't proper for a girl to be alone in the woods with so many men."

"Please, Rory," she said, grasping his hand. "Can't you find something else for me to do?"

The tingling sensation raced the length of his arm and exploded un-

der his shirt again. He tried to tear his eyes away from hers but couldn't.

"I. . ." He moistened his lips. "It just isn't proper," he said.

"I've already told two of the men around here I'm your sister. Isn't that a good excuse, Rory?"

He hesitated. "On one condition," he said.

She backed away from him hastily. "Condition?" she snapped. "What kind of a condition?"

He rubbed his hand but the explosions still ruffled his shirt. "That you tell me where you came from and why you're here."

"Of course I will, Rory." She darted forward, pulled his head down, kissed him on the forehead. "You'll never regret what you've done," she said. "Never!" Then she was gone, slipping across the room into the chef's quarters.

He stared after her with a foolish expression on his face, one hand touching his forehead, the other fisted convulsively. He made no attempt to follow her because he couldn't move his legs. He just stood there, whistling absently. It was the same tune he'd been whistling when he found her sitting in his station wagon that morning.

The village employment agency sent him a chef the next day and he moved Kate into the new cabin he'd built. He was surprised she didn't object to the sagging army cot, the battered dresser or the hastily constructed table and chair. Instead, she seemed delighted.

"This is wonderful," she exclaimed excitedly, cutting his attempted apology short. "And I can make it comfortable. You'll see."

He was grinning a little when he went down to the waterfront to repair the dock. But the grin faded abruptly when he remembered she'd made no attempt to keep her part of their bargain. The thought finally drove him back to the cabin suspiciously.

His suspicions needled him sharply by the time he reached it. Kate Laffin was gone, the furniture was gone, and so was the station wagon. Muttering dark threats, he hustled into the office, scooped up the telephone and called the sheriff.

Two hours later she came riding into camp with the sheriff, strode angrily into the office and shook an accusing finger in Rory's face.

"Who do you think you are?" she demanded heatedly. "What's the idea?"

"That automobile happens to belong to me," he told her mildly.

"Now do you know who I am?"

"So I was driving your automobile, playing your radio and using your ashtray," she snapped. "Is that criminal?"

Rory shrugged, stared at the kerchief completely concealing her red hair, turned toward the sheriff.

"Where did you pick her up?" he asked.

"Comin' out of the furniture store, mister."

"Furniture store!" Rory whirled and measured her with a disgusted stare. "You didn't have to peddle the stuff," he said evenly. "You could have asked for some money and. . ."

"If I didn't happen to like you," she stormed. "I'd slap your face!"

"What did you do with the furniture then?" Rory demanded.

"It's. . ." She flushed under his level glance. "It's. . . I think I am going to slap your face!"

"Fiery devil, ain't she?" the sheriff said. "You goin' to prefer charges, mister?"

Rory shrugged. "I don't know. The stuff wasn't worth more than a couple of dollars."

"A couple of dollars, hey?" The sheriff was studying Rory curiously. "If she was my sister. . ." He flipped one hand over, slapped it with the other.

"Sister?" Rory coughed, caught the flicker of a smile on Kate's lips. "Spare the rod and paint the sheep blacker, that what you mean?" He asked.

"You've got it straight, mister."

"Hmnn. . ." Rory grinned suddenly. "I think that's excellent advice, sheriff," he said, moving toward her. "I'll take it and we'll forget the charges."

Kate eyed his advancing figure for an instant, darted through the door and raced down the path to the cabin. The sheriff chuckled, laughed outright.

"Mind takin' me back to town now, mister?"

"Don't mind at all." Rory watched her slam the door and his grin widened a little. "I'll settle with my—ah, sister later. Let's go!"

But Rory ignored Kate completely when he returned to the lodge. He went directly to his quarters, settled back with the evening newspaper, a decisive expression on his face. He did not intend to furnish the cabin a second time.

He was trying to smother a protesting conscience when his glance caught the headline. He stared at

(Turn to page 32)





... *In the West*

Ingenious Tree Farmer

By **BOB FORBES**

ANORTHERN Idaho tree farmer, O.K. Smith of Hayden Lake, has attained that story-book goal—the properly balanced operation. Cattle, chickens, pigs and trees provide a bountiful farm living for O.K. and his wife, his two sons and their families.

Shorthorn cattle and chickens, run on 640 acres of the family holdings, present nothing out of the ordinary. But the tree-cropping plans and achievements on an additional two sections are unusual—seemingly impossible in a section of the country so greatly dominated by large timber operators.

The Western Pine Association-certified woods not only furnished lumber for the construction of all buildings on the property, they have been a steady source of cash income as well. "About one-third of our total receipts at present comes from the woodlot," says farmer Smith. "The best thing about our investment in trees is that it increases in value and will give my sons, Kenneth and Warren, a good return for years after I am gone.

"In about 15 years, the boys will be able to harvest at least 60,000 board feet of white pine, Douglasfir, hemlock, larch and ponderosa pine annually from our woodlot."

Immediately after O.K. moved to his Hayden Lake retreat from a wheat farm near Ewan, Washington, woodlot activity centered around sales of pulpwood and sawlogs. However, such sales were usually on a delivery basis only. O.K. says, "That way of doing business just wouldn't pay off. Now we're cashing in on the market close at hand for posts and poles preserved by the method

outlined in the University of Idaho Forest, Range and Wildlife Experiment Station bulletin, 'Cold Soak Wood Preservation.'"

Several drums for "penta" wood preservative, large stacks of posts and poles in various stages of treatment, three tractors and an incising machine have been set up for working in the woodlot behind the Smith residence. The last is the most ingenious of many Smith contrivances proving to one and all that tree farming will pay off.

The machine speeds the tedious job of poking holes in small-dimension wood products so they will take preservative more easily. It also saves back-breaking manual labor.

Incising is labor, agrees Franklin Pitkin, University of Idaho nursery manager, who also worked on the cold-soak wood-preservation project. "After pounding 250 posts with a spiked mallet all day long," he says,

"I was ready for nothing more strenuous than undressing for bed."

The Smith incising machine consists of a small car rolling backward and forward on narrow gauge rails, beneath a liberally spiked platform weighted with lengths of steel rail to give spikes the desired penetration. Bed of the car is also spiked with filed, 20-penny nails standing two inches apart and five-eighths of an inch high.

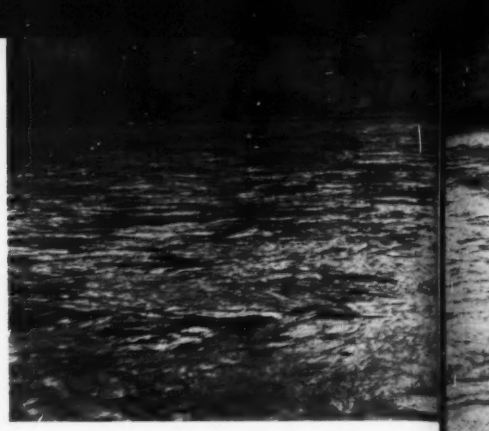
When the machine is in operation, a tractor is attached to a hitch on the car. One man then feeds a post or pole lengthwise into the machine's front end, placing it so that a two-foot-wide band of holes will be punched at the ground line. Another man drives the tractor forward a few feet, the post or pole rolls with the car's movement to incise holes on all sides and is then removed.

The Smiths have not kept a time study record on their incising machine, but it is safe to say that its method of poking small holes in
(Turn to page 42)

Part of Tree Farmer O. K. Smith's two sections of timber in northern Idaho. Smith expects annual harvest of 60,000 board feet in 15 years



Complete draining of lakes in time of drought is taking an appalling toll of the Southwest's game fish, says the author. Measures are urgently needed, he warns, to halt this indiscriminate depletion of a valuable resource



Fishermen Have No

By RAY HOGAN

Thousands of prime fish like this one held by the author have rotted on needlessly dried-up lake beds



AFTER all the hurrahing is done and all the words have been said concerning the construction and maintenance of Reclamation Bureau lakes, the fisherman, insofar as his rights are concerned, is expendable.

This startling condition, brought about by drought conditions in those areas where sportsmen depend entirely or at least to a great extent upon the waters of man-made lakes for their angling pleasure, constitutes a real threat to the future of fishing.

Seldom do you pick up a sporting magazine or a newspaper that doesn't relate the lamentable tale of a lake being drained or a river being rechanneled without any provision being made for the salvation of the fish contained in the waters. And sportsmen, sometimes being at the moment far removed from such homeground possibility, shrug it off with the thought that 'it's tough'.

But it is something that shouldn't be passed over lightly and no fisherman-sportsman is 100 percent immune! With water a major factor throughout the United States no man can be sure that reclamation will not enter his own happy fishing grounds and, as the records will prove, reclamation brings problems!

It's not that reclamation in itself is an evil and no attempt is being made here to minimize the importance of such projects. Nor is it denied that water is necessary to the life of men and their growing crops

Left, normal flow of the Chama River in New Mexico;
Below, the same river after drainage of El Vado Lake



Rights

and should be primary to the sport involved.

But certain measures should first be taken to protect the sportsmen and the tremendous investment they represent for, after all, they should have some rights since, they, too, bear part of the cost in any such project.

Take as example the Southwestern state of New Mexico, one with several reclamation dams and one of the areas hardest hit in recent years by drought.

(Author Hogan reported at press time that an exceptionally heavy snow fall in the watershed areas and above normal spring rains have temporarily eased New Mexico's water problems. He reiterated, however, that the same old problems are bound to recur in time of drought unless action is taken to prevent total lake drainings.)

El Vado Dam blocks the Chama River at a point near the town of Tierra Amarilla in the northern section of the state. The dam can impound some 300,000 acre feet of water for use in the Rio Grande Valley, extending through New Mexico and deep into Texas. The water is accumulated at El Vado from the snowfall in Cumbres Pass and the runoff from various smaller streams that empty into the upper Chama River.

Released through the gates of El Vado, it passes down the deep canyons and joins the Rio Grande River near Espanalo, New Mexico. From there it moves south some 300 miles to empty into the great Elephant Butte Lake, formed by another and much larger dam and which in turn controls and releases water for the farming areas in lower New Mexico and in Texas.

It is a long and devious route beset by many water consuming traps among which are Salt Cedar Flats near San Marcial and various swamps and bogs that syphon off much of the river's inventory.

El Vado Dam was completed in 1935 and since it offered such wonderful sporting possibilities it was stocked heavily by the state game and fish department and in 1936 was thrown open to sportsmen. From that day on it became one of the most famous trout waters in the entire Southwest and offered to the sportsmen, coming in from every state in the union, big trout with fabulous fighting qualities.

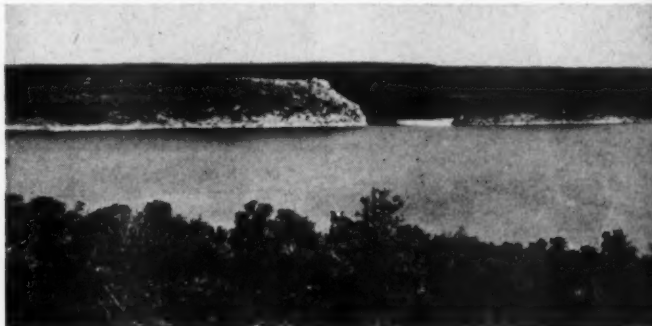
Five, seven and ten pounders were common and 15 pounders appeared regularly and now and then a real granddaddy—like the 21 pound Loch Leven landed by an unsuspecting

(Turn to page 46)

Draining El Vado Lake spoiled one of Southwest's choice fishing spots. The shine is mud, not water



Bluewater Lake, where 80,000 pounds of fish were killed when life-sustaining water was drained out



CITIES WITH A FUTURE



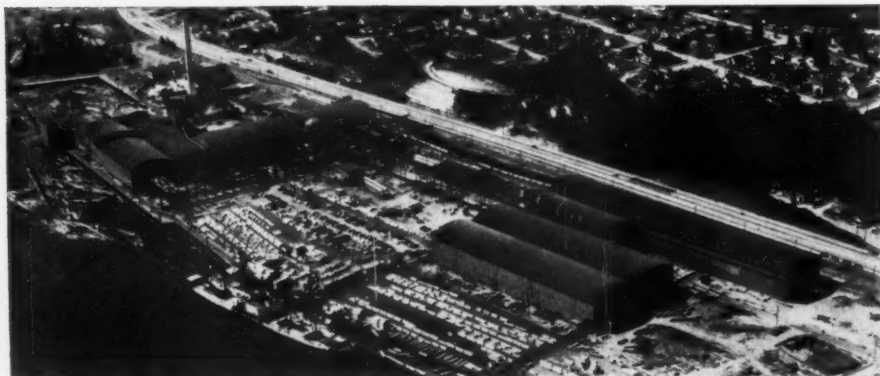
Big trees grow right down to the Pacific in this wonderful rain-forest land. The rugged coastline offers many sandy beaches.



Coos Bay is home harbor for giant ocean freighters as well as fishing fleets.



The Weyerhaeuser 205,000-acre Millicoma tree farm provides continuous log supply.



The new Weyerhaeuser Timber Company Coos Bay branch began production in 1951. Logs are pre-barked; the slabs and edgings are chipped and shipped to the Company's Springfield, Oregon branch for pulping. Lack of adequate fresh water supply prevents integration of pulping facilities on this particular site. Visitors are welcomed; guided tours.

NO. 9 OF A SERIES

NORTH BEND-COOS BAY IN OREGON

CAPTAIN A. M. SIMPSON landed here in the early 1850's with a portable sawmill. Employment in that industry has increased steadily, and now accounts for more than 1,000 steady jobs. There is every indication that this employment in the forest industry is stable and perhaps will increase, because most of the timberland of the area is in certified tree farms, and the Coos Bay-North Bend twin cities rate as one of America's finest tidewater mill locations.

But this area has much more to boast about. (Population increased 25% in the past 10 years). It is headquarters for a good-sized fishing fleet . . . produces important quantities of cranberries and other agricultural crops . . . and has worlds of appeal to the hunter and fisherman who likes his game plentiful and his country rugged! The Coos Bay Area itself offers the best striped bass fishing in the west, with no closed season and the bass weighing from 2 to 60 pounds. Next time you're west, drive down the Oregon coast highway and stop at Coos Bay Branch. We welcome you . . . guided tours!

WEYERHAEUSER
SALES COMPANY

ST. PAUL, MINNESOTA



When the Family Grouch refused to break out in a rash of adjectives over the famous park, he didn't fool the Home Companion. She knew his scoffing was just a masquerade

Through Yellowstone With a Pessimist

"YELLOWSTONE Park! Aren't you thrilled, Herry; that we are going to see America's biggest playground?"

"You can't expect me to break out in a rash of exclamation points about driving a thousand miles to see jitterbug mud pots and geysers," growled The Grouch. "I'd . . ."

"I know what to expect, but I'm not going to let it spoil my pleasure! Come, Junior, and see these lovely pools. And remember, son, this all belongs to the people of the United States—3472 square miles of wonderland."

"Is this where Alice went, Mumsie?"

"No, dear. That was a story. This is real."

"Life is real, life is earnest, and Old Faithful is our goal," muttered the Wet Smack. "And we'd better hurry or . . ."

"All right. The guide book says take this side road until . . ."

" . . . you come to a road under construction, I'll bet! Why must they tear up miles of highway every summer when . . ."

"Because there are more than 300 miles of improved highways in the Park and as this country is snow-bound in winter, construction must be done in summer," teachered the Family Guide. "Last year the grouches crabbed because *this* perfect strip was torn up. This year *you* take the rap for next year's perfect highway. Oh, there's a bear! Stop, Henry, so Junior can see it."

"He's seen lots of bears in the zoo. Why get excited because this one is on the loose? I'd rather go on and . . ."

"And you probably will. Never mind, Junior. There are over 350 black bears and 200 grizzlies in the Park and we will see more later."

"That means over 500 opportunities for people to disobey Park orders and feed the bears, and have their pictures taken with them eat-

ing right out of their hands—and eating them off too. Our national park hospitals are full of nitwits and daredevils who have fed . . ."

"No, don't scare Junior! Let's go and see all that steam coming out of the bank."

"Why get het up over a little steam? That's a joke, if you want me to stop the car so you can get out and laugh. No? Well, as I was about to say, if they would harness it and pipe it into cabins, I could get all het up about it but . . ."

"Harness my eye!" snapped the Home Companion.

"Get more power if it were your tongue," murmured the Big Shot.

"Mumsie, what does it say on that sign?"

"It's pointing to the Dragons Mouth, that big hole where the steam and water are pouring out."

"Listen to the old fellow belch—he has halitosis, too. Someone should tell him. All these roaring, hissing, steaming eruptions make me think the old hell-fire and brimstone preachers might not be far wrong after all with their . . ."

"Let's not go into that. Oh, here are the falls. Twice as high as Niagara Falls, the guide book says. Isn't it wonderful? And we must see the canyon from Inspiration Point. Isn't it immense, Junior?"

"You bet, Mumsie! And does it belong to the people of the United States, too?"

"Yes, son, every thing you see. Now, let's go on the other side and see it from Artists Point. Oh, Henry, isn't it just too colorful and beautiful for words? It looks exactly like the picture of it hanging in the capitol building."

"It should—it's the same Yellowstone Canyon and river that posed for the picture. Canyons don't change appearances with up-sweep . . ."

"Oh, don't be that way! You know it is gorgeous and inspiring and . . ."

"Colossal is the Hollywood word you are thumbing around for. And here is one place where it really fits. I'll take my hat off to it—the wind is going to blow it off anyway. Must be this is the place where they manufacture the big winds for hurricanes and political blowhards and . . ."

"If you are going to get into politics, let's go. Oh, see that nice old mother bear with the two little ones—watch her manege them!"

"You watch and learn a trick or two. Notice how they mind her? Atta girl. When *her* little ones won't mind *her* she smacks their ears down while *our* offspring . . ."

" . . . takes after Daddy and is unruly!" finished the Perfect Parent. "Let's go. I want to see Yellowstone Lake. It has a shore line of 100 miles and they say it is very beautiful."

"Do the people of the United States own that, too?"

"Yes, Junior, they own it all."

* * *

"Our second day and we're off to see the sights of more than 3000 geysers and springs! See them shooting all around—some more than 200 feet, the book says."

"This Morris Basin has too many 'sleepers,' and 'irregulars.' Let's go on to Lower Basin."

"I'm glad we did. Look at beautiful Blue Fountain geyser and glorious Prismatic Lake! Did you ever see such marvelous . . ."

"Slow up on the adjectives. You're only half way through the Park and you'll run out of words and have to end up with 'Ain't that cute' when you see Old Faithful spouting in the air 120 to 170 feet."

"Oh, look, Junior! This is Steady Geyser—plays continuously."

"Don't it ever have to take a nap?"

"No, son. Oh, pshaw, we just missed this one! And it won't spout again for six hours. Let's drive over to White Dome."

"Looks drier than last year's dried



By NELLIE BARNARD PARKER

beef to me so that must mean it is about due to blue its top. Yep, thar she blows! No use going over to Excelsior. The book says it quit working in 1888. Probably the first sit-down strike in the Park. Which reminds me we've . . ."

"Now, let's not get started on strikes, Henry."

"Why not? One strike and I am out and you thought of this trip while it was being settled—fiddling 'round while Rome burns. If I had my way . . ."

" . . . we'd have a new president, governors on cars and zippers on women's mouths," finished his Mind Reader.

"Mumsie, what's in that little house?"

"That is . . . Oh, Henry, you'd better take him while it is convenient. It's a long trip and . . ."

"Come on, son. For once your mother thinks I am the better pathfinder and for once on this trip I am gonna finish a sentence if I have to keep you in there the rest of the afternoon!"

* * *

"Oh, here you are! I think the next thing to do is go see Old Faithful. It erupts every 65 minutes."

"We'll probably arrive in time to see the crowd disperse. I'm always . . ."

"Grouching," completed his Psychoanalyst. "You are like the woman the ranger was telling about. Came from New York to see Yellowstone Park and when she learned Old

Faithful, the star of the show, wouldn't erupt for 18 minutes she said, 'Oh, pshaw! We can't wait. We've made only 450 miles today. We'll never get any place at this rate.' Oh, look, Junior, here are two geysers side by side, spouting and roaring at the same time."

"Are they married, Mumsie?"

"Ha, ha! That's one for the book. Observing child even if he is half mine and . . ."

"And that was your half that spoke! No, Junior, they are called Grotto and Rocket. And see this lovely Morning Glory Pool. Oh, good, Sapphire Pool is starting to bubble. There it goes! Isn't it wonderful, Henry?"

"Wonderful how you can keep spouting right along with the best of 'em. I've never seen . . ."

"Skip it—you heard what Junior said about Grotto and Rocket. Too bad . . . it isn't time for Riverside. It erupts every seven or eight hours and shoots out over the river. . . . Junior, keep away from that pool. That is hot water."

"It's Saturday. Why not dunk him in . . ."

"Don't try to be funny. Your wit is over his head and under my intellect. Come, son, it is time to go and watch Old Faithful."

"What's Old Faithful, Daddy?"

"I am, son. I cough up faithfully for the rent and . . ."

"Hurry, Henry, it's starting."

"What makes it go so high, Daddy?"

"Ask your mother. She knows all the answers."

"Thanks for the compliment—if such it be. But honestly isn't it marvelous? Aren't you glad we came? Don't you think this the most interesting and spectacular trip we ever took? It leaves me speechless . . ."

"Hadn't noticed you were . . . Didn't think it could be done. But this is the most . . ."

"Please, Henry! Must you say unkind and unfunny things even here where it is so wonderful?"

"You're right, my dear. We'll treat it with the respect it deserves. But what I was about to say was that it is the most wonderful trip we ever took except the one to Niagara Falls when we were married."

Oh, Henry, you're sweet to say that . . . it is just the final touch to make this trip perfect for me. Sometimes I think your remarks are too . . ."

"Don't take 'em too seriously. They are like the Fourth of July sparklers — they crackle and spark but are harmless and not meant to burn."

"Oh, Henry, you have made me so happy! I'll never forget this moment, standing here with you, surrounded by majestic mountains and miles and miles of untouched forests. Truly this is God's Country."

"How did He get it away from the people of the United States, Mumsie?"

"Ha, ha! Now that that boom-erang has come home to roost, Teacher, how are you going to ans . . ."

"Come, Junior, get in the car. It's time to go. Oh, look at that cute chipmunk running for cover under that log."

"He's not the only one running for cover! You still haven't answered how . . ."

"HENRY!"



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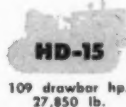
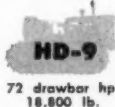
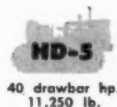
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Cash from Slash

(From page 17)

time until research will come through with the answer to bark and needles," he explains, recalling a somewhat similar situation in the South. There research developed a chemical process which made it possible to pulp four hard pine species never before used in paper making.

Right now the portable chipper is under close scrutiny from two directions. Forest defenders are thinking of it as a way to handle slash that will help, not hinder, timber production. Pulp makers are looking at it as a source of raw material.

"For a long time chippers at the mills have been grinding slabs, trimmings and other mill waste for pulp and paper board," comments Olson. "With those sources no longer adequate, the industry now is looking to the woods. Portable chippers could be the answer."

Although the possibility of the portable chipper finding a permanent home in the tall timber is the headline stuff in the current slash studies, it is only one phase of the new attack on a very old problem.

Old as logging itself is this question of slash. It bothered Paul Bunyan and every logger since.

Boiled down to bare essentials, slash is a mighty costly thing. It is a waste, a constant fire hazard. Moreover, slash costs logging companies and forest protection agencies lots of money to dispose of the hazard by burning. Slash costs have mounted from 75 cents to as high as \$2.50 for every thousand board feet of logs cut. Often the burning doesn't eliminate the hazard to the remaining timber.

"No one has begun breeding a square tree but during the past 30 years we certainly have heard all kinds of ways advocated for handling the slash from the trees we do have," observed A. B. Curtis, chief fire warden for the Clearwater and Potlatch Timber Protective Associations, the nation's oldest and largest cooperative forestry organizations.

In slash handling on the million and a half acre Clearwater woods in Idaho, the two cooperative associations which Curtis directs have pioneered new methods to prevent damage to young timber. Bulldozer piling, for instance.

These iron monsters skim their blades over the ground, pushing up bigger piles than hand pilers ever could construct. Fewer piles burn-

ing means less ground touched by fire. On some logging operations, trees are purposely cut close to the ground so dozer blades can glide over the stumps.

Engineers with the Clearwater association added blades to a sheep's foot roller to chop and crush lighter slash into the ground. They also developed a narrower dozer blade for greater maneuverability in a stand of young trees.

When Curtis, one-time president of the University of Idaho Alumni Association, suggested that slash handling be put under the research spotlight, Dean Jeffers not only accepted the suggestion but went a step further. He set up an advisory group to guide the project.

Up to now, fire hazard has been the chief consideration when foresters talk slash, the main reason for doing anything at all about it.

"The logging industry itself is thinking more about getting all it can out of the trees cut," Dean Jeffers explains. Rising costs of piling and burning slash are helping translate that thinking to action. Hence more material left to burn is coming out to market, as pulpwood, as fence posts.

No matter how far loggers may go in this trend of greater utilization of bigger slash there always will be plenty left to worry forest protectors during fire season.

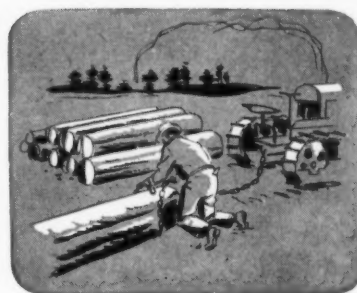
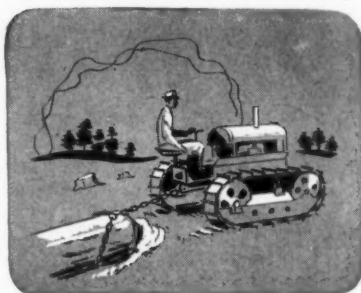
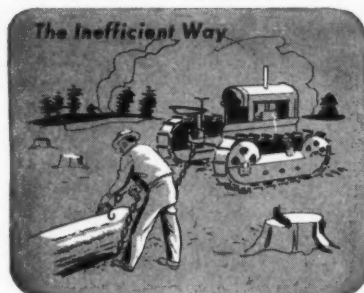
With that in mind, Dave Olson's principal job right now is the development of a "basic yardstick" that will guide protective associations and others charged with the responsibility of deciding what, if anything, to do about slash after each logging operation.

Development of this yardstick is, in effect, a recognition there is no "one rule" for slash handling. Each operation must be planned on the basis of local conditions and future use of the land.

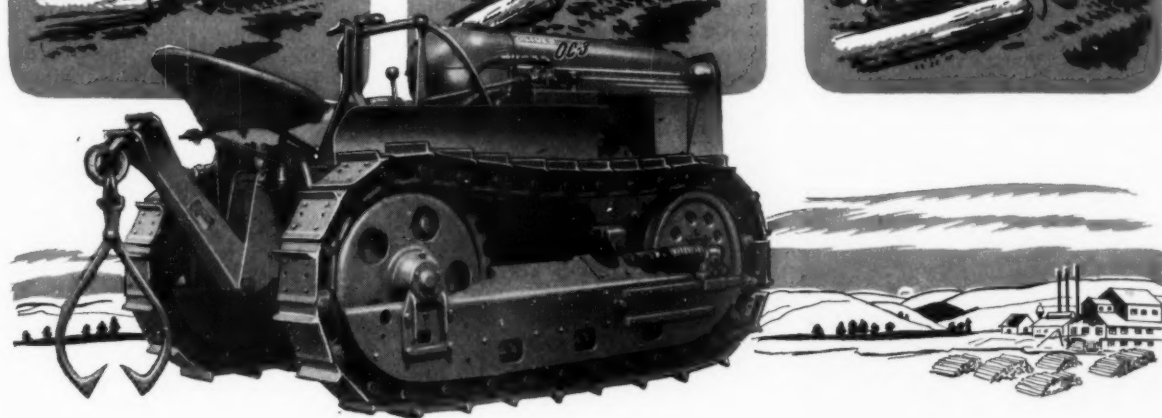
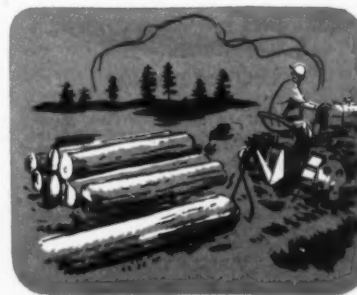
Thus all thinking and action among lumbermen, forest protection men, and research men are teaming up on a common course.

First, there will be greater salvage of the larger pieces of slash now left behind. Second, the slash still remaining will be handled in the way that will be most beneficial to the young timber still growing.

"After all," comments Curtis, "the whole purpose of forest protection following logging is to get another stand of timber for another cutting."



which man can log more?



Obvious question, isn't it? And, since it's so obvious, you can easily see why the Oliver "OC-3" Crawler Tractor with its hydraulic drawbar is so popular with loggers.

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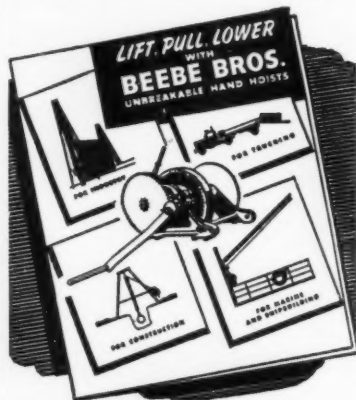
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The Bait Had Red Hair

(From page 20)

the paper for a moment, then snapped to his feet and strode through the woods in Kate's direction with his lips set in a grim line.

When she answered the door, he started to brush by her and stopped abruptly, his lower jaw hanging in mid-air. She chuckled as he gaped at the neatly furnished cabin but Rory whirled on her angrily, forgetting the headline and why he was there.

"Where did all this stuff come from?" he roared, waving an arm at it.

"They allowed ten dollars for your broken down old furniture," she said, edging away from him warily. "It came while you were in town."

"If you think I'm going to pay for this fancy looking junk, you're crazy!" He pointed his index finger at the end of her nose. "It's going back where it came from and so are you!"

"I'll have you know I paid for it." She retreated faster as he advanced, taking refuge behind a chair. "You don't look like a heel," she said. "But I'll bet you feel like one. The way you tried to take advantage of me in front of the sheriff. . ."

He stiffened suddenly, remembering the headline. "I'm taking advantage of you!" He dropped the paper on the arm of the chair. "Explain that!" he barked angrily, slapping it with the back of his hand.

"Believe bandit car driven by red-of. . ." She stopped abruptly, draped the paper over his outstretched arm. "You seem to be fishing in the wrong pond, Mr. McDevitt!" she snapped.

"That so?" He retrieved the arm and the paper. "Where did you get the money for the furniture then?"

"I think that's my business!"

"You drove my car into town today," he said. "You kept your hair completely hidden under your kerchief. Why?"

"Because I washed it," she snapped. "It's a habit I picked up somewhere. Probably from other girls."

"You're the prettiest criminal I've ever seen," he said slowly. "But you're not that pretty. I'm going to. . ."

"You've been thinking too much," she retorted. "It's making your head rattle."

"Maybe." He risked looking into her eyes for an instant. "We made an agreement, remember?"

"I'm a fugitive from my father because he thinks he's Cupid."

"Fugitive from your father? Cupid?" He frowned, folded his arms across his chest. "I don't get it," he said.

"He won't admit I can take care of myself. He has quite a bit of money and. . ." She crinkled her nose disgustedly. "He wants me to marry Brent because Brent has enough money to give me the same kind of life and all that rot."

"Who's Brent?" Rory asked. "One of the bandits?"

"His name is Brent Taylor," she said, ignoring the remark. "He's a lawyer and I despise him."

"Oh."

She frowned. "You don't believe me?"

"Suppose I talk to the police?"

"But. . ." She stared at him, her lips trembling a little at the corners. "You wouldn't!"

"Girls don't run away from money," he said. "They run after it." He shrugged. "They might even steal it."

She started to cry.

"You seem to know a lot of tricks," he told her calmly. "But you forgot to learn how to make the subject jump through the hoop a second time. Most unfortunate."

She stopped crying abruptly. "I hate you, Mr. McDevitt!"

"I know you do," he said blandly.

"Get out of my cabin, you—you brute!"

He grinned. "It isn't your cabin. It belongs to me."

She dropped into the chair, turned her back and rested her chin in her hands. Rory frowned, watched her for a moment, said gently, "Are you afraid of the police?"

No answer.

"This is a legitimate place of business," he said. "I can't risk its reputation."

Still no answer.

"You can leave whenever you like. I'll drive you to the village if that will help."

"I don't want to leave," she said flatly. "I want to stay. And if you go to the police, they'll tell my father I'm here."

"I see." He frowned and scratched

(Turn to page 34)

NEWS IN REVIEW

Education Front—The New York State College of Forestry at Syracuse has been reorganized into three divisions embracing ten of its 12 academic departments and including two new departments. The new divisions cover physical sciences, biological sciences and resource management. The new departments are forest chemistry and forest economics.

Dr. Hardy L. Shirley, acting dean, recommended the reorganization. He explained that it will "distribute administrative duties more equitably and draw on the mature talents and viewpoints of the experienced faculty members."

Two positions of associate dean were created in the move. Dr. Edwin C. Jahn, director of research, was designated associate dean for physical sciences and continues to direct research. The associate dean for biological sciences has not yet been named.

A new course devoted to the study of southern bottomland hardwoods will be inaugurated during the 1952-53 school year at Louisiana State University, according to R. W. Hayes, director of the School of Forestry. The course, to be taught by M. B. Applequist, is believed to be one of the first of its kind offered in the south.

The number of colleges and universities teaching engineered timber construction has increased more than 60 percent in the last five years, according to Timber Engineering Company. TECO attributed the increase to the growing recognition of the versatility of wood in reporting that 217 architectural and engineering schools conducted 306 courses in timber construction during the last academic year.

Weyerhaeuser Timber Foundation has established a \$100,000 memorial fund at Yale University in honor of Charles S. Chapman, late pioneer forester, it was announced recently. J. P. Weyerhaeuser, Jr., chairman of the foundation's board of trustees, said the fund will be used for the advancement of industrial forestry through fellowship grants, research, and other educational activities that

may be designated by the dean of the school of forestry.

The National Wildlife Federation has announced four grants of \$1000 each for college fellowships in advanced conservation training or research. Designated as "J. N. (Ding) Darling Fellowships" in honor of the noted newspaper cartoonist and conservation leader, the grants went to Long Beach State College of California, Cornell University, Boston University and University of Wyoming.

Conservation Yearbook — The Conservation Yearbook 1952, a directory and guide to facts, figures and people in American conservation, is just off the presses and is available at \$5 a copy. Edited by Erle Kauffman, veteran conservation writer and former editor of *American Forests*, the initial edition contains detailed information on agencies, commissions, boards, associations, foundations, societies and other organizations concerned with conservation as well as data on the men and women affiliated with these groups. Publication of subsequent editions is planned for the first quarter of each year, presenting the conservation story as it exists on January 1.

Safety Record—An official citation for an exceptional unit safety record in avoiding disabling accidents was presented recently to the Eastern Region of the Forest Service. The award covers a seven-year safety record among 400 employees performing high-hazard forestry work,

largely in rugged terrain in the 14 northeast states. The record reached an accident frequency as low as 1.25 percent per million man hours worked in 1951 and has been cited as one of the best group achievements in public or private employment.

Names in the News—WILLIAM M. SWINGLER, former Forest Service regional forester at Philadelphia, named to succeed recently appointed Forest Service Chief Richard E. McArdle as assistant USFS chief in charge of cooperative forestry programs; CHARLES L. TEBBE, named to succeed Swingler; F. P. KEEN, named special assistant to the chief, division of forest insect investigations, USDA Bureau of Entomology and Plant Quarantine; C. B. EATON, named to succeed Keen as supervisor of USDA insect control projects in California; CORYDON WAGNER, chairman of the board, National Lumber Manufacturers Association, named to represent the natural resources industry on the board of directors, U. S. Chamber of Commerce.

W. S. BROMLEY, new executive secretary and treasurer, American Pulpwood Association, succeeding H. E. BRINCKERHOFF, retired; ROBERT J. HOYLE, JR., named to the research staff, Timber Engineering Company; HORACE M. ALBRIGHT and DR. JOHN O. BREW, appointed to the Advisory Board on National Parks, Historic Sites, Buildings and Monuments, Department of Interior; RUSSELL K. LEBARRON, new chief of forest management and silvicultural research, California experiment station, USFS; DR. HARRISON F. LEWIS, retired as chief of the Canadian Wildlife Service; MISS ETHEL M. QUEE, retired as secretary after 37 years of service in various capacities with the Wildlife Management Institute.

STATE FOREST EXECUTIVES MEET

Discussion of the various ways in which state groups can help improve forest management practices, especially by small woodland owners, highlighted the fourth annual meeting of the Council of State Forestry Executives June 18-19 in Lufkin, Texas.

Speakers emphasized the need for education, declaring that timber owners' lack of knowledge is retarding good forestry. Youth groups interested in forest preservation were cited as a particularly fertile field for education.

Meeting with the state executives were representatives of American Forest Products Industries, consulting foresters, Society of American Foresters, Southern Pine Association, American Bankers Association and The American Forestry Association. AFA was represented by Fred E. Hornaday, secretary.

New officers elected include: William E. Cooper, Richmond, Virginia, chairman; Harris A. Reynolds, Boston, Massachusetts, vice-chairman; and A. W. Kelly, St. Albans, West Virginia, secretary.

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The Bait Had Red Hair

(From page 32)

the base of his neck. "You run out on a wedding or something?"

No answer.

"Maybe you ought to let me take you to the village."

She was silent a moment. "It's none of your business," she said finally. "But I want to show him I can take care of myself." She lifted her face toward him in sudden defiance. "You'll let me stay?"

Rory pursed his lips and studied her thoughtfully for several seconds. She didn't look like a bandit anymore. She looked like a redheaded devil who needed the influence found on the business end of a paddle. He told her so deliberately.

"What!" She moved behind the chair again and fixed him with a suspicious stare. "You act like a cowboy eyeing a wild horse or something."

He shrugged. "It's an idea," he said.

"Not with me it isn't!" she snapped. "You can go back to the corral with the rest of the beasts. Goodbye, Mr. McDevitt!"

He couldn't get her out of his mind on the walk back to his cabin. The idea didn't surprise him too much. Sandra Evans wanted everything money could buy. She'd been tamed by it and that left him without a weapon. But Kate Laffin. . .

He made no attempt to contact the sheriff in the village the next morning. And he was whistling by the time he resumed his repairs to the dock. A man can fool himself for just so long and then it has to end. He can't tell his troubles to a trout, a lake or an empty cabin. There has to be a girl. It's part of the scheme of things. Tame her right and. . .

"Good afternoon, Mr. McDevitt," she said.

Her voice startled him and he dropped his hammer.

"Leaving us soon?" he asked.

She stiffened. "Is that your decision?"

He retrieved the hammer, said, "If I were your father, I'd introduce you to the reverse side of a hairbrush."

"I'm glad you're not my father," she said. "He doesn't have such beastly instincts. Besides. . ." She whirled as a car slid to a stop in front of the office, turned back to him angrily when the sheriff appeared on the path leading to the dock.

"You sneak!" she stormed. "You—you. . ."

"You're running too much line," he told her mildly. "It's probably a routine visit."

The sheriff stopped at the edge of the dock and measured them with a grim expression on his face. He did not acknowledge Rory's greeting.

"That was a neat trick you tried to pull on me mister," he said.

"Trick?" Rory expressed surprise. "I don't understand."

The sheriff jerked a thumb toward Kate. "You say she's your sister."

"What about it?"

"She ain't your sister, mister."

"No?"


"No." The sheriff advanced a few steps, pointed a forefinger at the kerchief on Kate's head. "Let's see what she's hidin' under that thing."

"Red hair," Rory told him easily. "And she isn't hiding it. She just washed it."

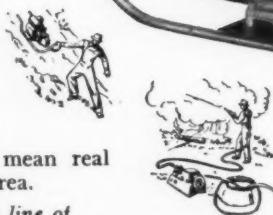
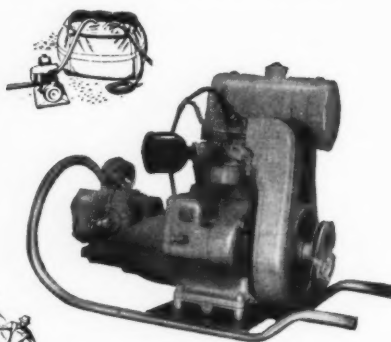
"Yeah?" The sheriff coughed, spat tobacco juice. "Why would a man

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have his sister arrested for usin' his car? 'Cause she ain't his sister, I says. Then I got to thinkin' about the redheaded bandit. You ain't so smart, mister. All that hocus-pocus put me on the track instead of. . ."

"That's a lot of nonsense sheriff," Rory snapped. "You're after the wrong fish."

"That so?" The sheriff shifted his tobacco to the other side of his face. "Then you ain't got nothin' to worry about. You'll come along peaceable like, eh?"

Kate glared at him. "I'll do no such thing," she snapped. "You can take your tin badge and go play cops and robbers somewhere else."

The sheriff pulled at his gun belt. "What have you got to say, mister?"

"I'd hate to tell you, sheriff," Rory said. "But I don't think we'll argue." He grinned into Kate's baleful stare, took her firmly by the elbows and propelled her toward the path. "Will we, Kate darling?"

"Mouse!" she whispered fiercely.

Rory chuckled but didn't risk a reply. He was still steering her by the elbows and he liked the idea. It did something to his bloodstream. The wrong answer might do something to his face. It was excellent strategy because she let him steer her all the way to the office.

The sheriff said, "You drive it, mister. I'll ride in back with the girl."

Rory shrugged and started around the car. The sheriff opened the door, motioned Kate to step inside, turned in sudden curiosity as a mud spattered limousine ground to a stop beside him.

"What's going on here, sheriff?" the driver demanded, flicking a quick glance toward Kate.

The sheriff looked him over casually, inspected his companion just as casually, then ejected a thin stream of tobacco juice. His face did not change expression.

"Who might you be, mister?"

"The name is Brent Taylor," the driver said, sliding out of his seat to the ground. "I'm the young lady's fiancé."

"Phooey," Kate said.

Rory stared and pursed his lips distastefully. Taylor was in his late thirties, carried a slight paunch, and wore a somewhat superior expression on his baby face.

"This is John F. Laffin," Taylor said, indicating his companion. "He's the young lady's father and an influential man. I don't think. . ."

"I can do my own talking, Brent,"

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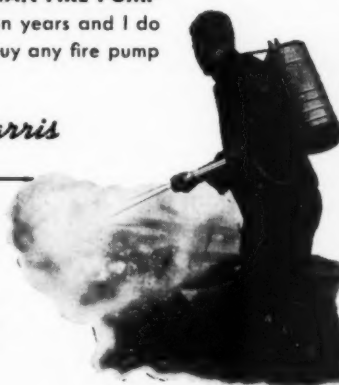
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Kate's father interrupted sharply.

When Rory laughed outright, Taylor fixed him with a hostile stare for an instant, then turned his attention back to the sheriff.

"What's the charge?" he snapped. "It might interest you to know I'm also her lawyer."

"Phooey," Kate said again.

"You don't say." The sheriff rolled the tobacco in his mouth without changing expression. "She'll need a lawyer, mister."

"What!" Taylor stepped forward angrily. "I'll have you know I don't like your attitude. You were asked a legitimate question and..."

"That's all, mister." The sheriff shifted his tobacco again and turned to Kate's father. "This man your son?" he asked, jerking his thumb toward Rory.

"Son?" The older man looked startled. "Of course not. I don't have a son. I... What are you getting at, sheriff?" he asked.

The sheriff seemed to be measuring his man. "They told me they're brother and sister," he said. "She's been stayin' here with him since the..."

"What!" Taylor whirled on Rory, his face livid. "Why you contemptible cad," he shouted in a voice thick with anger. "I ought to break every bone in your filthy body!"

"More phooey," Kate said.

"Just a minute, sonny boy," Rory growled. "I don't happen to like the way you jump to conclusions."

Taylor ignored him. "This is a fine state of affairs," he snapped at Kate's father. "To think my fiancée would become involved in such a sordid mess. I told you she couldn't take care of herself."

"For Pete's sake," Kate exclaimed. "So that's what you've been selling behind my back!"

Rory walked over to Taylor, stabbed him with a forefinger. "Well, sonny boy?"

"Take your filthy hands off me," Taylor said.

Rory sighed and loosened his shirt. "This," he said, "might even be a pleasure."

"I'll have you know I boxed in college." Taylor stepped back a pace, folded his arms across his chest.

"I guess that makes us even." Rory grinned as he moved forward again. "Are you going to start breaking my bones or am I going to start breaking yours?"

"Hey!" the sheriff exclaimed. Wait until I..."

"Hooray," Kate said.

Taylor hesitated, muttered some-

thing under his breath, then stepped in and launched a roundhouse right. Rory ducked, jarred him with a left jab, set him up with another and crossed with a whistling right to the chin. Taylor sat down abruptly.

"You'll have to get up," Rory told him mildly. "I don't think I'm finished yet."

"I can't look," Kate said, covering her face with her hands. "It's going to be murder."

Taylor managed to find his feet, stood on them unsteadily for a moment, then lurched forward. Rory stooped, swung him up across his shoulders, and held him there struggling feebly.

"It wouldn't be right," he said. "I'm afraid he doesn't feel very well."

"There's something the matter with his complexion," Kate said. "There doesn't seem to be any blood in it."

Rory turned and started down the path to the lake. There was a faint splash and a few minutes later he came back, grinning broadly.

"I think he's going to have me arrested again, sheriff," he said. "Shall we wait?"

"The sheriff doesn't think I'm a bandit anymore," Kate told him triumphantly. "We explained everything."

"I'm sorry I had to do that, Mr. Laffin," Rory said. "But I think he asked for it."

"You're danged tootin' he did," the sheriff exclaimed. "A lawyer, hey!" He rolled the tobacco in his mouth and squirted juice with a disgusted snort.

John F. Laffin was studying Rory intently. He was a handsome man in his early 50s who kept brushing a shock of tumbling, iron gray hair out of his eyes. He didn't speak for several seconds and when he did there was a frown on his face.

"I'm sorry you thought that necessary," he said finally. "I'm afraid my daughter has caused enough trouble already."

"That's ridiculous," Kate said. "I'm not the one who jumped to conclusions."

"A little spoiled, perhaps?" Rory asked.

"That's true," Laffin admitted.

"That's rot," Kate said.

Rory grinned. "She seems to have a mind of her own, too," he said.

"Is that a crime?" Kate demanded. Laffin smiled faintly. "I understand she has a job here."

"She did have a job," Rory said. "She's just been fired."

Kate flushed angrily, opened her

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mouth to say something, then closed it again as Taylor sloshed into view at the head of the path. His hair was matted across his forehead, his shoes leaked water, and he was walking as though half the lake had settled in the seat of his pants.

"You won't get away with this," he snapped. "You can count on it!"

Rory shrugged. "You'll find some dry clothes in the tool house," he said disinterestedly. "Help yourself."

"There he goes," Kate wailed. "There's the man who's supposed to take care of me. He can't even take care of himself. Just because he has a lot of money. . ." She started to cry.

A pained expression crossed her father's face. He moved forward and cradled her head on his shoulder.

"You've had a hard time," he said soothingly. "But you'll feel better after we get home."

"I don't want to go home," she sobbed. "I want to stay here and that—that clown made me lose my job."

Her father glanced at Rory somewhat helplessly. "You didn't fire her, did you?"

"The same bait doesn't catch every fish," Rory told him deliberately. "She's fired."

Kate lifted her head abruptly and glared at him. "Don't you dare. . ."

"Turn off the water," Rory said. "That kind of nonsense doesn't work around here."

"I ought to slap your face," she stormed. "I ought to. . ."

"You have a new job," Rory interrupted mildly. "It starts with a marriage license."

She stared at him.

"Come here," he commanded. "You baited your hook and you caught a fish."

"I will not!" She stepped back a pace. "You're a brute and a cad and. . ."

Rory moved forward swiftly. She struggled for an instant, then relaxed in his arms.

"You're a nice brute, though," she said finally. "Do it again."

Rory did it again.

John F. Laffin was staring at his daughter in mute amazement.

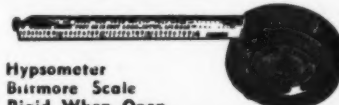
"I think you've finally met your match," he said, conviction in his tone. "He knows exactly how to handle you."

"You're danged tootin' he does," the sheriff exclaimed. "And if she gives him any trouble. . ." He grinned, flipped one hand over, and slapped it with the other significantly.

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Incident Near Dirty Shirt Peak

(From page 12)

worked the whole night through. And they had worked on us.

I gave some men axes, others McLeods (a sturdy tool with a cutting edge opposed by coarse rake-teeth on the other side), and others shovels. A couple were given brushhooks, and one lucky man, a pair of pruning shears. You should see the pruning shears cut brush. Just a breeze on anything up to three or four inches in diameter. Alternate men were to carry the back-pack gallon canteens with straps over shoulders.

We were ready for the knockout blow. The fire had been almost corralled. One last stab. One grand, collective effort of all personnel able to climb the mountain. And then . . . rest.

"Axes front, shovels to the rear," said I.

"Faces front, buttocks to the rear," mimicked someone. Swell. The old morale was 100 percent. Great boys. They'd been around. Old Stormy was at the point where the firetrail started from the highway and abruptly took off for the higher regions. He wished us good luck.

Everyone automatically looked up the mountain. There seemed to be no leveling off or top to it. One interminable pitch. Step. Step. The soft, yielding sand almost nullified our efforts. Step and slide back. Try it again. Every so often we paused for breath. I mean often. Hearts pounded against ribs. Breathing was labored.

I cautioned the men to look out for rolling rocks and to be quick in giving the warning. I kept my eyes roving for burning snags or logs that might give way and spread death in their plunging wake.

We slowly went higher and higher. We met the patrol of the day. Faces blackened, weariness showing in every line, every motion, even in their tone of voice, they told us, "Long way yet. You've only started." Encouraging.

The gallon canteen on my back weighed heavily. The straps cut into my shoulders. I was glad when someone would ask for water to fill his hip canteen. Lightened mine.

The fire had been fluid and uncertain. Patrols were patrols in name only. No mopping up. That would come later after the crescendo of conflict, after the rampant fire had called a retreat, and burning had given way to smoldering.

Such was the grueling ordeal of the climb that we grew to hate this mountain. The glare on the rocks and sand was blinding, the heat unrelenting. Whereinell's the top? Visibility was good, but still no leveling off in sight. We took a "five," a smoke, and a drink of water.

As a man looks down on the street from the top of a skyscraper, so could we now gaze down and see the ribbon of highway hugging the white face of the Merced. Pigmy cars scurried in each direction.

A man would say, "There goes a Buick."

"Yere nuts, it's a Crosley or Austin."

"You're both wrong. You can't tell what make of car it is from this distance. But did you see that brunette in the last car? She had that come-hither look."

"Okay, let's go," I stood up, put one foot out and followed determinedly with the other. A man behind me dislodged a boulder. He called the warning cry. Heads snapped up, feet shuffled, some danced an uncertain jig. The rock went off at an angle, and all relaxed.

Now we were getting up in the world. We had reached a sort of halfway leveling off place where the grade wasn't so bad. While we were taking a rest at this point, a "runner" came down the mountain. He asked, "What gang is this?"

I told him, "Mine and Don's and another outfit. About 100 men."

"Well," said the messenger, "you fellows have only another quarter to go. The ranger is waitin' there for (Turn to page 40)

THE AMERICAN FORESTRY ASSOCIATION

919 SEVENTEENTH STREET, N. W., WASHINGTON 6, D. C.

Office of the President

Dear Fellow Members:

You are invited . . .

To attend the joint Annual Meeting of The American Forestry Association and the North Carolina Forestry Association, October 12-15, in Asheville, North Carolina. This Convention has been timed to take full advantage of the fall mountain coloring and I want to remind you that you do not need a "formal invitation"—to come and bring your friends, too.

Registration and informal gatherings are planned for Sunday, October 12 by Mr. Horace C. Jenkins of Gwynedd, Pennsylvania, Chairman of our Membership Committee who says—"The more the better."

Monday Morning, October 13

Invocation, The Rt. Rev. M. George Henry, Bishop of the Episcopal Diocese of Western Carolina.

Welcoming Addresses—Honorable W. Kerr Scott, Governor of North Carolina, and Mr. Earl W. Eller, Mayor of Asheville.

"Forests and Waters"—Dr. R. E. McArdle, Chief, U. S. Forest Service.

"Southern Forestry Today"—Captain I. F. Eldredge, Consulting Forester, New Orleans, La.

"Water and Industrial Development of the South," Mr. Norman A. Cocke, Vice President, Duke Power Company, Charlotte, N. C.

General Discussion

Monday Afternoon

Panel Discussion, "Forests and Water"—Moderator, Mr. Lloyd E. Partain, The Country Gentleman, Philadelphia, Pa.

"Forest management and research on national forests in the Southern Appalachians for watershed protection," Mr. Charles A. Connaughton, Regional Forester, U. S. Forest Service, Atlanta, Ga.

"Importance of water and forests to the future of the power companies," Mr. Carlton J. Blades, Chief Forester, Duke Power Company.

"The State's interest in watershed management," Mr. George R. Ross, Director, Department of Conservation and Development, Raleigh, N. C.

"Working with Nature," Mr. Bryce C. Browning, Secretary-Treasurer, Muskingum Watershed Conservancy District, New Philadelphia, Ohio.

"Some Aspects of Water conservation and use in the Tennessee Valley," Dr. Harry A. Curtis, Director, Tennessee Valley Authority, Knoxville, Tenn.

General Discussion.

Monday Evening

Annual Banquet

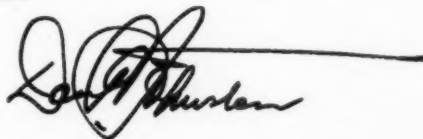
Toastmaster—Mr. Reuben B. Robertson, Chairman, Champion Paper and Fibre Company, Canton, North Carolina.

Speaker, Mr. Erle Cocke, President, The Fulton National Bank, Atlanta, Ga.

Introduction of Guests, Conservation Awards, Door Prizes, Entertainment.

Tuesday and Wednesday, you may choose from several outstanding field trips, including (1) Coweeta Hydrologic Laboratory, (2) Great Smoky Mountains National Park and Cherokee Indian Village via the Blue Ridge Parkway, (3) Bent Creek Experimental Forest, Biltmore Plantations, and The Champion Paper and Fibre Company, and (4) Mt. Mitchell State Park and Biltmore House and Gardens.

Judging from advance bookings we know we are going to have an unusually large attendance and I urge you to get a letter off today to the Battery Park Hotel, Asheville, North Carolina, making your room reservation. Rates are \$4-\$7 single, and \$7-\$12 double, European plan.



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Incident Near Dirty Shirt Peak

(From page 38)

you on the flat and will give you the dope."

"If . . . we get there," I couldn't help putting in.

"You'll make it all right. But no hurry. Everything is under control."

All the way up we had noticed that it was pretty well burnt out to the firetrail. Nothing near the trail seemed of great menace; I felt safety also prevailed to the rear.

"All right men." We were off on the last lap. Suddenly in a last, rock-strewn, upward thrust the trail gave way to a ridge top, a broad shelf along a rim-rock which bordered a tremendous chasm. At the bottom of this little Grand Canyon, perhaps not quite a half-mile down, the dying remains of this so far 1300-acre fire smoldered and dallied, sending lazy, formless smoke drifting and dissipating in the scant uphill draft.

It was simple. It was casual. Ranger Pete's assistant told me what to do. After a three-hour climb, the orders gave me a sense of dismay. Go down? My gawd, we just got up here. Of course it wasn't to be down the way we had come. It was "over the hump" if you please, following a hurriedly made firetrail scarcely worthy of the name.

Overhead a couple of turkey buzzards swooped around, playing a hunch.

Still, things apparently were not so tough. The fire had been tamed. Down in the pit of the basin the weakening remnants of the once powerful foe were wasting away, chewing off a lone bush now and then, and lapsing back.

By this time I had the orders straight. Simple again. Go down into the pit on the fakeloo, unfinished firetrail, straight down it was, and first cold-trail the fire patches, then press inward from the perimeter and put out everything possible.

I thought it over. You always think it over before you take a gang of men anywhere in the woods, especially on a fire. Going down, there would be a protective dead burn to our right. It wasn't burnt clean, but it looked like safe territory . . . just in case.

Behind us on a huge, flat rock sat the ranger and several assistants looking at the fire with watchful, calculating eyes, but unalarmed.

We started down. Take it easy. Take it easy. We scrambled down about 50 yards, and there I halted.

From this point it was a fair drop-off for 20 or 30 yards more. It consisted of a series of little ledges or jump-downs. Below this cliff or slide, the trail went back to the old burn again and to theoretical safety. All I had to do was lead the men down the slide and everything would be all right.

I took off, and presently there were four of us almost at the foot of the slide and ready to continue when the rest had reached our little shelf.

Because of our position on the perch we couldn't see the fire below too well, though of course we had viewed it plainly enough only a few minutes before. Doddering old thing. That's what it was. All "shot." Just a cream-puff of an ol' fire. Ready to turn up its toes and holler quits.

Just then the pot boiled over.

An explosive sound, not too sharp, somewhat deadened. Miracle of memory! Hail the rear-view mirror! My mind skipped back five years in the space of a heart beat. The flashback showed me the whole thing again, the complete act in that wild amphitheater of the Piutes. Same natural set-up. Fire racing . . . never forget . . . comes this way, we're sunk. . .

The men! Have to stop the rest from coming down, and get everyone out of here. Fast.

I turned face uphill where the men were inching down. In the loudest, most commanding voice I'd ever used, I shouted, "Reverse! Everybody go back! Go back! Hurry up! Don't crowd, but get going!"

As I now turned to the little group with me, I could first hear it . . . and then I could see it. Forked tongues of flame on the upshoot. Fire on the prod. The mountainside was its ladder, and here we were three or four rungs down from top and safety. And to start with we were plastered against the side of a barely negotiable cliff.

I tried to keep calm, but I sure as hell made it clear we weren't staying for pinochle.

The first of us four reached the top of the slide and kept going. Fine. That left three. Next man made it leg up and to standing position at the toughest spot, and waited to help us.

God bless you, Red, wherever you are.

Number three man came to the ledge, which was not much more

than shoulder high; but as the lady Lot did, he looked back. And he evidently turned to salt. The helping hand on the ledge reached for him. No dice. No effort on the man's part. He stood transfixed. There on a bleak mountain side was a two-man tableau I wish to forget.

I was blocked. I was scared. I was sweating blood. Then I was mad. "Damn it, man, let Red help you. Throw your ax away. Put your hands on the rock. For God's sake, move!"

I put my shoulder to his rear end and good old Red got a grip and jerked the man onto the ledge, pushing him up the trail.

I was weak from the ordeal, the still-mounting suspense. Red's hand grabbed mine with a wonderful, cool, sure strength. "Thanks," and once was all I could say it then.

The straps from the canteen cut in. I couldn't get enough air. Managed to shake the canteen loose. It rolled . . . I never looked back. Crackle, roar, whoosh! It was getting hot.

Men along the horizontal at the top of the ridge watched the stumbling race. We reached a clear route and left-angled into the old burn near the top, gasping, faltering, pooped—but safe.

All my men were safe, thank God; and all those others who would have followed us down like sheep.

About 30 seconds after we pivoted from the line of fire, it went shooting past our tails and on up the ridge and over. Not a good margin. No sir!

From the first warning boom the whole thing took only three or four minutes. The falsely confident men on the ridge top now had to make a dash for it themselves. With all the preview, still one man had his shirt catch fire. And yes, the ranger and his boys left the huge, flat rock. Left it quickly.

Drama, so utterly unadorned. Fire chases men. Men escape by seconds. Certainly glad the rear-view mirror was clean. The perfect flash, the original from the Piutes. I shuddered. I saw it again, and I shuddered again. But good old mirror.

The fire finally reached the king peak in the semi-circle of peaks jutting up on the perimeter of this horrible canyon. When the all-in fire fighters figuratively drove the golden spike of the completed fire-trails there, one man, with theater in his soul, had an idea.

He fashioned a naked pole and thrust it strongly into the topmost knoll of this topmost peak. He tore off his sweat-encrusted, dirty shirt. This he tied pennant-wise to the pole. A moderate breeze did the rest.

And that's what I've been trying to tell . . . about an incident that took place near Dirty Shirt Peak.

Your Shade Trees

(From page 13)

their normal color, the trouble is an internal plugging of the "sap-tubes."

Leaf Spots. These are caused by attacks of fungi or bacteria. The spots vary in color from yellow to brown, red or black. Fungicidal sprays applied *before* the principal infection period is an effective control measure. Raking and burning the affected leaves helps to reduce the spread of the disease. A severe attack usually indicates a weakened tree, due to lack of sufficient moisture or plant food nutrients.

Leaf Scorch. This usually is apparent in the form of irregular brown areas on the leaves, such as is often found on maples and horsechestnuts. The cause may be a poor root system, or undue exposure of the foliage to the sun. The leaf scorch on horsechestnuts must not be confused with leaf blotch, a fungous disease. The latter can be controlled with a fungicidal spray.

Discoloration of Leaves. Foliage

with a faded, or light yellow green color, or a mottling of yellow with green may indicate the presence of a virus disease, or an unbalanced nutritional condition. In the case of a virus disease no definite control is known. The best suggestion is to keep the tree free from insects and see that it has the proper soil condition for a normal growth. When only certain branches show yellowing foliage examine a cross section of the affected branch for indications of a vascular disease.

A heavy infestation of aphids in conjunction with a fungous growth may produce a black or sooty mold on the foliage.

Smoke injury or salt water spray may also cause the discoloration of foliage.

White Powdery Growths on Leaves. This is caused by fungi, usually the mildews. It is most common during a wet season. Control is by the application of a sulfur

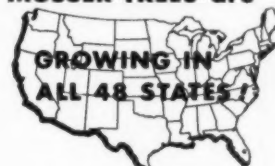
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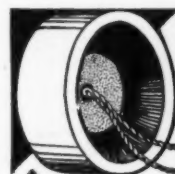
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spray. Burning the infected leaves also helps.

Pustules on Leaves. Black, brown, yellow, or reddish pustules or powder on leaves are usually caused by rust fungi. A common one is the cedarapple rust. Spraying with sulfur or Bordeaux mixture will help keep this disease in check. Or, the elimination of an alternate host, where there is one, will eradicate the disease.

Brown Needles on Conifers. This may be caused by certain types of fungi, or by wind-burning. For control of fungous attacks spraying is necessary, while wind-burning is due to lack of sufficient soil moisture. This is rather common where evergreens are growing in frozen ground.

Insects on Bark. Scale insects on the bark of trees, especially on small branches, can devitalize the tree by sucking the sap from the growing tissues. A contact spray will eliminate them.

Bark Cankers. A tree canker causes the bark to fall off and usually leaves a sunken area on the branches, trunk or roots. They may be caused by attacks of fungi, bacteria, viruses, or insects. Control is by tree surgery.

Slime-flux on Bark. This is a whitish ooze which appears on, or at the base of wounds on trees. This can be controlled by reducing the excess-flow of sap with drain pipes before it reaches the wound.

Dieback. The appearance of dead branches may be due to attacks of wood or bark borers, fungi, bacteria, viruses, soil conditions, or severe climatic factors. Spraying, pruning and burning the diseased leaves and twigs, and improving the soil condition are the usual remedies.

Galls or Growths. Certain types of growths around twigs, trunk or roots of trees are due to insects or bacteria. Pruning or tree surgery are the usual methods of control.

Witches Broom. This is the result of an abnormal development of twigs and branches. Remove where desirable.

Frost Cracks. These are long deep vertical splits along the trunk of trees. There is no prevention or control. Repairs are usually not recommended.

Tunnels in Trunk. These indicate the presence of boring insects. Sometimes exuding "frass" or sawdust near the opening is found where the borers are active. They may be "wired out" or killed by fumigation. Small borers are very difficult to control.

Sudden Dying of Top. There are many causes for such a condition, root trouble, excess soil moisture, bark borers, gas injury, toxic elements in the ground, lack of soil aeration, or diseases of the inner bark or roots.

Stunted Appearance. This is usually due to poor soil conditions. Other factors are too much shade, exposure to excessive climatic elements, insects, and diseases.

Cold Injury. If the bark of the tree trunk sounds hollow underneath it has separated from the wood and should be removed and the wood surface treated and painted before decay sets in. The cause of the separation of bark from the wood may be due to excessive low temperatures, or a lightning stroke.

Girdling Root. The absence of a normal root-flare near the ground is often due to a girdling root. This will retard the normal flow of nutrients to the rest of the tree. Tree surgery is the only remedy.

Compact Soil. Excessive trampling near the base of a tree causes root injury and destroys the normal pore space in the soil that is necessary to supply the roots with an adequate supply of oxygen and moisture.

Managing Your Woodland

(From page 21)

posts and poles is fully twice as fast as hand methods.

A unique incising machine is just one of several Smith innovations in the practice of good farm forestry. A prospective or unexperienced tree farmer can learn a great deal from O.K. Smith or his boys.

For instance, the Smiths run their cattle in the woods until undershrubs have been trampled or eaten; against the advice of every forester. But the Smith woodlot has no wild

current bushes in it and none of its white pine trees is blighted by blister rust, despite the fact that neighboring timber tracts are overrun with both shrubs and disease.

Warren, the elder of Smith's two boys, emphasizes an advantage peculiar to a tree crop when he points out, "Almost all work in the woodlot can and does wait until the slack season in our other farm chores."

Everything is OK with the O.K. Smith family when they plan part of their future on trees.

Forever Wild?

(From page 9)

kept in use for satisfying the needs and aspirations of its people as far as that is possible through intelligent management."

J. Victor Skiff, deputy commissioner of the New York Conservation Department, discussing the economic side, said that "no matter how much all of us would like to remove the forest preserve from the mundane field of economics, it was, is and unquestionably will continue to be an extremely important factor in the economic development not only of the forest preserve counties, but of the whole state.

"In our forest preserve, we have a capital investment of \$21,204,000 representing cost of land acquisition and facilities erected by this Department. We have already paid \$46,000,000 in taxes on this property, and annually pay maintenance charges (largely taxes) of \$1,778,000. It has increased considerably in value, and has paid off in watershed protection, water supply, erosion control, flood control, enhancement of the resort business, and above all, in recreation—in the true sense of that word.

"The presence of the preserve obviously has a direct effect upon the economy of northern New York. The two biggest industries there involve recreation and the production and process of forest products. . . Anything that can be done to increase recreation or strengthen the forest industries will improve the economy of the region."

On the fourth question, that of recreation, H. H. Chapman, professor emeritus of the Yale School of Forestry, said this:

"By refusal to recognize the principle of zoning public forest land for multiple use, which gives recreation exclusive priority only on areas where it constitutes the highest value, the citizens of New York are not only 50 years in arrears in public policy but have expended upwards of \$100,000,000 in taxes, administration, and protection of the area without either realizing any of the possible economic benefits of the timber resource, or deriving more than a fraction of the recreational satisfaction to which they are entitled."

The views of Gustav A. Swanson, head of the department of conservation, Cornell University, were that while a great debt of gratitude was due the farsighted framers of the constitutional safeguard the quality of recreation provided only by wilderness country is more important now than ever before.

He said he was convinced that "we can learn from the experience in other areas where wilderness values are being preserved that properly considered modifications of our present constitutional safeguards could increase the value of the forest preserve and strengthen its wilderness character."

The Conservation Department sums its stand up in this way:

"As to the questions themselves, the Department's answers must be abundantly clear: we believe that much but not all of the forest preserve should remain untouched. However, we believe that well recognized principles of forest and wildlife management could and should be applied to carefully selected parts of the forest preserve—as they have been applied so successfully to other lands.

"We believe that good forestry, involving carefully supervised cutting would contribute not only to the improvement of the forests themselves, but to the economic stability of communities within or adjacent to the preserves. We believe that more recreational facilities involving use of less than one percent of the preserve could and should be erected for the use of more people on what is for many of these people the only land they own."

"We do not believe that any of these things may properly be done under the present constitution."

And so the discussion continues—and probably will continue for some time. As Fosburgh said in his initial editorial:

"... we advocate nothing more than a deliberate, sensible, foresighted approach to the right answers . . . the decision rests with the people and their elected representatives."

Whatever those right answers are, they will be eagerly-awaited milestones in forest use policy.

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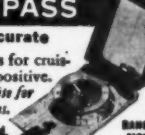
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BOARD ADVANCES DATE OF AFA ELECTIONS

By action of the Board of Directors, meeting in Washington, D. C. on June 30, Section 2 of Article IV of The American Forestry Association By-Laws was amended in such a manner as to effect an advancement from December to November in the annual election by the membership of Association officers. Other deadline dates were advanced accordingly, and members are hereby notified that any nominations for the Committee on Elections should be received "on or before September 1." (The previous deadline was November 1.)

The complete section now reads as follows, with the amended dates printed in capital letters:

ARTICLE IV—Board of Directors

Sec. 2. The Board of Directors shall select each year a Committee on Elections, whose names and addresses shall be published in an issue of the magazine not later than during the month of JULY. The Committee on Elections shall consist of three members of the Association in good standing for at least three years. Not more than one member of the Committee on Elections shall be, at the time of selection, an officer of the Association. Suggestions for nominations for any officer of the Association to be elected at the next annual election of officers may be

submitted to the Committee on Elections by any member of the Association; nominations for such officers may be made by not less than twenty-five members of the Association, signed by the members submitting them. All suggestions and nominations should be addressed to the Committee on Elections at the main office of the Association and must be received by the Committee on or before SEPTEMBER 1. The Committee on Elections shall nominate at least one candidate and not more than two candidates for each officer to be elected at the next annual election of officers of the Association. The candidates nominated by the Committee on Elections, together with any other nominations made by not less than twenty-five members of the Association, and which have reached the Committee on Elections prior to SEPTEMBER 1, shall be published in the OCTOBER issue of the magazine, with the names of members of the Association making the nomination appended to the nomination of any such candidates. The Secretary of the Association shall cause a ballot to be printed containing the names of all candidates nominated by the Committee on Elections and by any group of twenty-five or more members of the Association as hereinbefore provided and shall mail such ballots to all members of the Association having the right to vote on or before NOVEMBER first. The members of the Association shall elect the officers by mailing to the Secretary in sufficient time to be received on or before NOVEMBER 30 a ballot containing the names of the candidates voted for. Every ballot shall contain the name and address of the member submitting it. The ballots shall be counted by three tellers appointed by the Committee on Elections, who shall decide any questions as to the ballots submitted and who shall officially certify the total vote cast. A majority of the ballots cast shall be sufficient for election.

Fishermen Have No Rights

(From page 23)

angler one bright morning—would come along. The lake offered marvelous trolling during the season and the river itself was an ideal spinner stream with flies being the most effective on both during the late months.

And then the dry years came. Snowfall on 10,000-foot Cumbres fell far below normal for several consecutive winters. Rainfall was practically non-existent and the lake filled slowly behind towering El Vado. Farmers in the lower reaches began to clamor for more water—water that actually wasn't there—and the order went out to heed their demands. The level of the lake sank lower and lower and game officials and sportsmen became alarmed and started to protest.

Fish resources were already suffering. A plea was raised to save the fish, to not drain the lake entirely, but it went unheard although conscientious men in charge delayed all they legally could. But law was law and the water level fell until it was

finally stopped at 2000 acre feet.

Here it was shown that the remaining water could not possibly benefit the lower farm areas several hundred miles down the valleys since evaporation and other natural loss would consume it long before it reached its projected destination—and that much water left in the lake would save the trout.

But the lower area water commissioners were adamant. The law stated that they were entitled to and could receive every drop of water behind El Vado Dam, regardless of whether it would benefit them and they insisted the lake be drained.

More than 200,000 pounds of fish were killed by these demands. I walked along the lake shore and beheld thousands of trout, curled and dry in the hot sun, large and small, rainbows, Yellowstone natives and huge 24-inch Loch Levens. The scene was repeated on the Chama River below; thousands of fish rotting along the banks and in the dry

river bottom, filling the canyon with an unholy stench.

A like occurrence took place in the Southwest's Bluewater Lake area a few years previous. There 80,000 pounds of game fish were destroyed and in other states similar losses are sustained annually.

How to prevent all this?

To the credit of E. S. Barker, New Mexico game and fish warden and to certain other interested men, goes the acclaim of sportsmen in that state for the first step in the right direction. Soon after Bluewater Lake was drained, Barker advanced and saw to a successful conclusion the purchase of the "bottom 5000 acre feet" of water impounded by the dam, thus guaranteeing from then on the safety of all fish in that lake from the evil of complete drainage.

But such a procedure isn't always possible. Not all lakes and rivers can be protected in this manner. What is needed are laws making it illegal to drain any specified body of water if it has been stocked with game fish at state expense, which of course means by sportsmen, too, since departments exist only by the purchase of licenses and other permits.

A minimum depth to which any lake may be lowered should be established and any contractor undertaking work on a flowing river should be required to take protective measures to safeguard the fish if his job calls for any changing of the stream that might endanger its marine life.

And certainly, in further interest to sportsmen, any water on private land over which there is no jurisdiction except that of the owner, should not be stocked at all by state-raised fish.

Such laws are practical and entirely possible.

No man wants, and everybody regrets, the loss of the thousands of fish destroyed when lakes are drained. The thought of many hours of pleasure lost haunts the dreams of millions of sportsmen. The merchant, too, should be alive to the situation even though he, personally, may have never flicked a coachman across a rifle and watched a big brown rise to take it in a mighty swirl.

For fishing, as a sport, is big business. In one state alone for the year 1949 the value of the sport exceeded 14 million dollars, all but two percent of which was percolated down through every known industry in the country.

But, perhaps you may say that you live in an area where water shortages are unknown, where actually there may be too much water and there are no Bureau of Reclamation projects or other similarly constructed dams that have been stocked with trout or bass at your expense.

New Mexicans thought that about El Vado and about Bluewater Lake and about tremendous Elephant Butte. Today two have been drained and the third, Elephant Butte hangs in the balance.

An injunction halted its outflow in 1951 when the water level fell to an alarmingly low stage and the matter is now the subject of a legal suit between Texas and New Mexico.

So, if you are fortunate enough to live in an area where water is plentiful do not rest easy that the condition will always prevail. Check your impounded lakes and be certain that the fish therein are guaranteed life by a minimum depth of water, for the world is a changing thing and weather cycles are unpredictable. Today you may be enjoying the finest in marvelous sport but will your grandson years from now?

Forum

(From page 2)

deal of additional information in regard to the subject if Mr. Smith desires.

Frank G. Chiles, president of By-Brooks, Incorporated of Pleasant Valley in Bucks County, Pennsylvania, writes:

On page 20 of the June 1952 issue is an article entitled "Be Your Own Guide" by Robert D. Wray. In the article in italics there is mention of the possibility of obtaining a pocket stereoscope (for viewing aerial land photographs) for less than \$10.

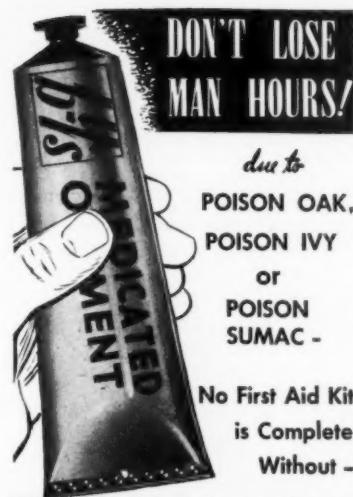
If possible, I would appreciate your advice as to where I might obtain a stereoscope of the type described or of putting me in touch with someone who may be able to give me this information.

Since Mr. Chiles was one of several requesting this same information, we queried Author Wray for more particulars. For the information of anyone interested, he wrote:

The pocket stereoscope is manufactured by the Abrams Instrument Corporation, Lansing 1, Michigan. Handling similar instruments are Harrison C. Ryker, Inc., 843 Thirty-Fifth Avenue, Oakland 1, California and Fairchild Camera and Instrument Corporation, 88-06 Van Wyck Boulevard, Jamaica 1, New York.

Writes C. M. Goethe from Sacramento, California:

Most timely was your article "Public Parks or Public Dumps?" in the May issue. Especially valuable in these days of visual education is the photograph "Park signs riddled by gun-toting vandals."



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Editorial

THE PALEY COMMISSION REPORTS

The President's Materials Policy Commission on June 23 released its highly significant report telling the public where America stands in regard to its "Resources for Freedom." Doubtless your local newspaper or weekly magazine has already touched on the subject, but you should know that many conservationists regard the report as important enough to have at ready reference in any resource planning discussions which may occur in the future. Certainly its findings and recommendations thoughtfully sum up this nation's predicament and future course of action. Method of implementing that action may, however, stir a bit of controversy.

In case you may have forgotten, the Materials Policy Committee was appointed by the President a year and a half ago to study the materials problem of this nation and its relation to the free and friendly nations of the world. Headed by CBS Chairman William S. Paley, it included Edward S. Mason, dean of Harvard's Graduate School of Public Administration; Eric Hodgins of *Fortune* Magazine's Editorial Board; President Arthur Bunker of Climax Molybdenum Company; and Engineer George R. Brown, chairman of Texas Eastern Transmission Corporation.

The 813-page report is in five volumes, but for purposes of this discussion only Chapter 8 of Volume I, "Making the Most of Timber Resources," is pertinent. You will probably be interested also in Volume IV which deals with Technology and includes a chapter on forest products.

Thinking conservationists everywhere have been aware for some years that bold steps needed to be taken to assure a perpetual supply of timber resources, and many are willing to argue that indeed large strides have already been taken in recent years toward that goal. The Paley Commission findings support that viewpoint in part, but conclude that despite a possibility of total wood growth exceeding total drain by 1975, it is the sawtimber picture which must be drawn in red ink. Says the Commission: "... Unless current trends can be modified, sawtimber drain in 1975 might exceed the domestic growth of trees capable of being used for sawtimber by more than 50 percent."

On the basis of present available resource surveys (those of 1945 by the U.S. Forest Service and by The American Forestry Association, plus the 1944-49 Progress Report of The American Forestry Association), such prognosticating might seem altogether reasonable. There is,

however, reason to look askance at the timing of the nation's top delvers into the resource cauldron. One might wonder why the Paley Commission was turned loose at a time when so many felt the 1945 appraisals were inadequate or at least incomplete. That its findings were released so soon following Forest Service announcement of plans to conduct, with the help of outside groups, a more intensive Timber Resources Review makes the timing even more incongruous. Conceivably the new Review might alter considerably the dire Paley forecasts.

The Commission recommends: a more comprehensive and coordinated program of research and control measures against forest pests and diseases; intensifying all other forest research efforts with emphasis on woodland management and wood utilization; establishment of forest credit and insurance systems; substitution of yield taxes for ad valorem taxes on timber (somewhat after the famous New Hampshire pattern); building of more tap roads to give access to federally owned commercial timber lands in the West; and greater activity toward replanting denuded or partially stocked federal forest lands to trees. With those measures there can be no quarrel.

It is disturbing, however, to note throughout these recommendations the familiar Administration thesis that only the federal government has the know-how. The Commission, for instance, recommends the federal government give the states five years to set up satisfactory systems of compulsory regulation, and if this is adjudged wanting the federal government will then establish its own controls. Sound familiar? The federal government approach is foremost in all the other recommendations, too, often with the stipulation that "expense should be shared equally by the federal government and the participating state governments."

The crowning incongruity, however, is that after building so interwoven a case to convince the taxpayer he should buy still further federal regulation of his activities the Commission makes as its final recommendation: "That the federal government raise the level of silvicultural work on its commercial timber land at least to the level maintained on intensively managed private forest lands of comparable value."

Laudable as is the Commission report, we can be thankful this once it will undergo considerable tempering in Congress before, or if, its various measures are enacted into law.

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